



August 26, 2024

The Offices at the Agora      5000 Euclid Avenue      Suite 104      Cleveland, Ohio      44103

**Project:** Cincinnati Metropolitan Housing Authority  
New Parking Lot at Marquette Manor  
1999 Sutter Avenue  
Cincinnati, OH 45225

## **Addendum #1**

Clarifications and Revisions to the Construction Drawings and Project Manual dated 08.02.2024 Issued for Bidding. Revisions are clouded and tagged with "delta 1."

### General

1. The selected contractor will be required to hold their bid for 220 days, allowing for a spring 2024 start once asphalt plants reopen.
2. The selected contractor will be required to coordinate construction activities with the construction occurring concurrently on the Marquette Manor Building, including adjacent site work.
3. The selected contractor will be required to coordinate construction activities with the potential addition of solar panel canopies covering select parking areas if related grant funding is awarded..

### Drawings

C600      Revised asphalt pavement detail  
The standard duty intermediate course increased from 2" to 2.5".  
The standard duty base course increased from 6" to 8"

\*The entire drawing set stamped and issued for permit is available. Only minor adjustments were made to the architectural, site and landscape for coordination with the civil drawings.

### Project Manual

Table of Contents – Revised per added sections.  
General Conditions AIA 201 – Replace with CMHA General Terms and Conditions for Construction Contract.  
32 1723      PAVEMENT MARKINGS – Section added.  
Appendix      Geotechnical Engineering Report dated August 23, 2024 – Section added.

END OF ADDENDUM

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## **1. ARTICLE I CONTRACTOR'S RESPONSIBILITIES**

- 1.1.** The Contractor shall perform the Work in a workmanlike manner, consistent with the standards of skill and care exercised by entities licensed to perform (where required by Applicable Law) and regularly performing comparable work in the same or similar locality under the same or similar circumstances.
  - 1.1.1.** Furthermore, Contractor agrees to adhere to CMHA's quality standards as outlined in the Contract Documents; this includes, but is not necessary limited to, CMHA's Gold Standards of performance.
- 1.2.** The Contractor shall perform the Work in accordance with the Contract Documents.
- 1.3.** The Contractor shall furnish all labor, services, materials, tools, equipment, superintendence, and transportation necessary for performance of the Work.
  - 1.3.1.** Contractor shall also furnish all necessary water, heat, light, and power not made available to the Contractor by CMHA.
- 1.4.** The Contractor shall perform on the site and with its own organization, work equivalent to at least {12%} (unless otherwise indicated) of the total amount of work to be performed under the order.
  - 1.4.1.** This percentage may reduce by a supplemental agreement to this Construction Contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be the advantage of CMHA.
- 1.5.** At all times during performance of this Construction Contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the work site a competent superintendent whose qualifications and experience are satisfactory to CMHA and has authority to act on behalf of the Contractor.
- 1.6.** The Contractor shall be responsible for all damages, including, but not limited to, damages to persons or property, that occur as a result of the Contractor's breach of this Construction Contract, fault or negligence.
  - 1.6.1.** The Contractor shall take proper safety and health precautions to protect the Work, the workers, the public, and the property of others.
  - 1.6.2.** The Contractor shall hold and save CMHA, including CMHA's officers, employees, consultants, and agents, free and harmless from damages, claims, demands, suits and liabilities of any nature, including but not limited to, all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, caused by the Contractor's breach of this Construction Contract, fault, negligence or performance of the Work.
  - 1.6.3.** The Contractor shall also be responsible for all storage, protection and cleaning of materials delivered and Work performed on the Project, until Contract Completion and acceptance of the entire Project by CMHA, except for any completed unit of Work which may have not been accepted under the Construction Contract.
- 1.7.** The Contractor shall lay out the work from base lines and bench marks indicated in the drawings and be responsible for all lines, levels, and measurements of all work executed under the Contract Documents.
  - 1.7.1.** The Contractor shall verify the lines, bench marks, figures and dimensions indicated in the Contract Documents before laying out the work and will be held responsible for any resulting errors resulting from its failure to do so.
- 1.8.** The Contractor shall confine all operations (including storage of materials) on CMHA's premises to areas authorized or approved by the Contracting Officer.
- 1.9.** The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials.
  - 1.9.1.** After completing the Work and before final inspection, the Contractor shall:
    - A.** Remove from the premises all scaffolding, equipment, tools, materials (including rejected materials) that are not the property of CMHA and rubbish caused by its work;
    - B.** Leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer;
    - C.** Perform all specified tests; and
    - D.** Deliver the installation in complete and operating conditions.
- 1.10.** The Contractor must perform the Work so as to not interfere with, disturb, hinder, or delay the services of separate consultants or the work of separate contractors.

- 1.10.1.** The Contractor must cooperate and coordinate fully with all separate consultants and separate contractors and must freely share all of the Contractor's Project-related information with them to facilitate the timely and proper performance of the Work and of the services and work of the separate consultants and separate contractors.
- 1.10.2.** The Contractor must afford every separate consultant and separate Contractor proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of their services and work.
- 1.10.3.** If the Contractor damages the property or work of any separate consultant or separate Contractor caused by Contractor or by failure to perform the Work with due diligence, delays, interferes with, hinders, or disrupts the services of any separate consultant or separate Contractor who suffers additional expense and damage as a result, the Contractor is responsible for that damage, injury, or expense.
- 1.10.4.** The intent of 1.10 is to benefit any separate consultants and separate contractors and to demonstrate that the separate consultants or separate contractors are intended third-party beneficiaries of Contractor's obligations under the Contract.
- 1.11.** If the proper execution or result of any part of the Work depends upon work performed or services provided by CMHA, a separate consultant, or a separate Contractor, the Contractor must inspect that other work and appropriate instruments of service, and promptly report to CMHA in writing any defects or deficiencies in that other work or services that render it unavailable or unsuitable for the proper execution and results of the Work.
  - 1.11.1.** The Contractor's failure to inspect and promptly report any issues in writing will constitute an acceptance of the other work and services as fit and proper for integration with the Contractor's Work unless in the opinion of CMHA's Project Manager and/or Construction Contract Administrator the defects and deficiencies in the other work and appropriate instruments of service were not reasonably discoverable at the time of the Contractor's inspection.
- 1.12.** The Contractor shall not delay the Work on account of any claim, dispute, or action between the Contractor and CMHA or the Contractor a Separate Consultant or Separate Contractor.
- 1.13.** The Contractor shall complete all portions of Work in the sequence in the Construction Progress Schedule.
- 1.14.** The Contractor shall develop and keep a Construction Progress Schedule and prepare and keep current a schedule of submittals that is coordinated with the Construction Progress Schedule for CMHA's acceptance.
- 1.15.** The Project's regular work hours shall be between 8:00 am and 5:00 pm, or as determined and approved by CMHA.
  - 1.15.1.** The Contractor may modify the regular work hours only if Contractor receives written authorization from CMHA's Project Manager and/or Construction Contract Administrator.
- 1.16.** The Contractor shall coordinate the Work with the activities and responsibilities of the Project's architect or engineer ("A/E"), CMHA and Contractor's surety to meet the contractual dates for Substantial Completion and Contract Completion.
- 1.17.** The Contractor shall remove any snow and ice as may be required for reasonably safe access to the Project, including, without limitation, building entries, driveways, parking lots, and sidewalks.
- 1.18.** The Contractor shall keep a daily log containing a record of weather, number of workers on Site for the Contractor, identification of equipment, Work accomplished, problems encountered and other similar relevant data.
- 1.19.** The Contractor hereby represents and agrees that, prior to submitting its bid or quote to perform the Work on the Project, it has had a competent person carefully and diligently review each part of the Contract Documents, including the Divisions of the Specifications and parts of the Drawings that are not directly applicable to the Work.
  - 1.19.1.** Contractor further represents and agrees that, based upon its careful and diligent review of the Contract Documents, that it is not aware of any conflicts, inconsistencies, errors, or omissions in the Contract Documents for which it has not notified CMHA or the A/E.
  - 1.19.2.** If there are any such conflicts, inconsistencies, errors, or omissions in the Contract Documents, the Contractor will:
    - A.** Provide the labor, equipment, or materials of the better quality or greater quantity of Work; and/or
    - B.** Comply with the more stringent requirements.

- 1.19.3.** The Contractor will not be entitled to any additional compensation for any conflicts, inconsistencies, errors, or omissions that would have been discovered by such careful and diligent review.
- 1.20.** The Contractor hereby represents and agrees that the Project is a public project involving public funds.
  - 1.20.1.** The Contractor further understands that CMHA expects and requires that each Contractor adhere to the highest ethical and performance standards.
  - 1.20.2.** Accordingly, Contractor hereby pledges and agrees that:
    - A.** It will act at all times with absolute integrity and truthfulness in its dealings with CMHA and the A/E;
    - B.** It will use its best efforts to cooperate with CMHA and the A/E and all other contractors and consultants on the Project and at all times will act with professionalism and dignity in its dealings with CMHA, the A/E, and other contractors;
    - C.** It will assign only competent supervisors and workers to the Project, each of whom is fully qualified to perform the tasks that are assigned to him/her; and
    - D.** It has read, understands and will comply with the terms of the Contract Documents.
- 1.21. Emergency**
  - 1.21.1.** In the event of an emergency affecting the safety of the Project, other property, or individuals, the Contractor, without special instructions or authorization, shall act to prevent the threatened damage, injury, or loss.
  - 1.21.2.** If the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of its actions in response to any emergency, the Contractor may request a Change Order by giving written notice no later than 48-hours after the emergency.

## **2. ARTICLE II HOUSING AUTHORITY RIGHTS AND RESPONSIBILITIES**

- 2.1.** CMHA shall designate a Project Manager and/or Construction Contract Administrator for the Project.
- 2.2.** CMHA shall have access to the Work and Site at all times, whether the Project is in preparation or progress.
- 2.3.** CMHA is not responsible for construction means, methods, manners, techniques, sequences, procedures, or for safety precautions and programs in connection with the Work, or for the Contractor's failure to carry out the Work in conformity with the Contract Documents.
- 2.4.** Upon the date indicated in the Notice to Proceed, CMHA shall provide the Site to the Contractor in a condition to permit the Contractor to perform the Work.
  - 2.4.1.** If the Site provided by CMHA is not in a condition to permit the Contractor to perform the Work, Contractor shall notify CMHA's Project Manager and/or Construction Contract Administrator within 48 hours of the Notice to Proceed and identify the conditions which are preventing Contractor from performing the Work.

### **3. ARTICLE III A/E'S DUTY, RESPONSIBILITY AND AUTHORITY**

- 3.1.** The A/E for this Contract and any successor shall be designated in writing by CMHA.
- 3.2.** The A/E's duties and responsibilities may include, but shall not be limited to:
- 3.2.1.** Attend and conduct the Construction Progress Meetings.
  - 3.2.2.** Making periodic visits to the work site and on the basis of his/her on-site inspections, issuing written reports to CMHA which shall include all observed deficiencies.
    - A.** The A/E shall electronically send a copy of the report to CMHA and to the Contractor's designated representative at the site.
  - 3.2.3.** Making modifications in drawings and technical specifications and assisting the Contracting Officer in the preparation of Change Orders and other Contract Modifications for issuance to the Contracting Officer.
  - 3.2.4.** The A/E may authorize minor changes or alterations in the Work that are consistent with the intent of the Contract Documents and do not involve adjustment of the Contract Sum or Contract Times, or both.
    - A.** The A/E has no authority to authorize the Contractor to perform additional or extra Work for which the Contractor may seek adjustment of the Contract Sum or the Contract Time, or both.
  - 3.2.5.** Reviewing and making recommendations with respect to:
    - A.** The Contractor's Construction Progress Schedules;
    - B.** The Contractor's shop and detailed drawings; and
    - C.** The Contractor's price breakdown and progress payment estimates.
  - 3.2.6.** Assisting in inspections, signing Certificates of Substantial Completion and Contract Completion, and making recommendations with respect to acceptance of work completed under the Contract; and
  - 3.2.7.** Approve or certify applicable forms required under the Contract Documents.
- 3.3. Site Visits and Observation**
- 3.3.1.** The A/E shall notify, advise, and consult with CMHA and protect CMHA against Defective Work throughout completion of the Project, which includes the Correction Period, and for such time period CMHA may extend A/E's services.
    - A.** The A/E should designate a field representative, subject to CMHA's approval, to attend meetings, to observe and check the progress and quality of the Work, and to take action as necessary or appropriate to achieve conformity with the Contract Documents.
    - B.** The A/E shall have its consultants attend to the Project at intervals required by its agreement or required by CMHA.
  - 3.3.2.** The A/E is authorized to disapprove or reject Defective Work. The A/E shall immediately notify CMHA any time the A/E disapproves or rejects an item of Work.
  - 3.3.3.** The A/E is not responsible for construction means, methods, manners, techniques, sequences, procedures, or for work safety precautions and programs in connection with the Work, or for the Contractor's failure to carry out the Work in conformity with the Contract Documents.
- 3.4. Testing and Inspection Services**
- 3.4.1.** Unless otherwise specified in the Contract Documents, CMHA shall apply for, secure, and pay for the costs of structural testing and special inspections under the Ohio Building Code; testing including geotechnical analysis, environmental testing and analysis, concrete, masonry, structural steel, reinforcing steel, welding, bolts, steel connections, HVAC systems and controls, plumbing and piping, air, and water balancing and testing, or other testing, or approvals required by Applicable Law.
- 3.5. A/E Review and Approval of Work**
- 3.5.1.** Any information the Contractor submits to the A/E is for the sole purpose of determining whether the Work and information is generally consistent with the Contract's intent, and will not relieve the Contractor of its sole responsibility for the performance, preparation, completeness, and accuracy of the Work and information.
  - 3.5.2.** By reviewing information submitted by the Contractor, A/E is not taking on responsibility for construction means, methods, manners, techniques, sequences, procedures, or for work safety precautions and programs in connection with the Work.
- 3.6. Limitation of A/E's Authority**



- 3.6.1.** The A/E shall serve as the technical representative for CMHA with respect to architectural, engineering, and design matters related to the Work performed under the Contract.
- 3.6.2.** Subject to the Contractor's responsibility under ARTICLE I, the A/E may provide direction on Contract performance.
- 3.6.3.** Such direction shall be within the scope of the Contract and may not be of a nature which:
  - A.** Institutes additional work outside of the scope of the Contract;
  - B.** Constitutes a change;
  - C.** Causes an increase or decrease in the cost of the Contract;
  - D.** Alters the Construction Progress Schedule;
  - E.** Changes any of the other express terms or conditions of the Contract;
  - F.** Accepts any defective or non-conforming services, Work, or vendor-furnished items;
  - G.** Makes any settlements on CMHA's behalf;
  - H.** Assumes any responsibilities of the Contractor or Subcontractors; or
  - I.** Binds CMHA to any authorizations under, modifications of, or amendments to the Contract Documents other than as expressly provided A/E'S DUTY, RESPONSIBILITY AND AUTHORITY.
- 3.7.** The Contractor acknowledges and agrees that CMHA's legal counsel may from time to time provide legal services to the Project and that in doing so may communicate with the A/E, as CMHA's representative on the Project.
  - 3.7.1.** The Contractor agrees that such communications will be privileged communications and, if there is a Claim contemplated or pending, any written communications will be protected by the attorney client privilege and considered confidential work product.

## **4. ARTICLE IV PRECONSTRUCTION ACTIVITIES**

### **4.1. Pre-construction Conference**

**4.1.1.** Within ten (10) calendar days, unless otherwise indicated by CMHA, of Contract execution, and prior to the commencement of work, the Contractor shall attend a preconstruction conference with CMHA representatives; CMHA's A/E, and other interested parties convened by CMHA.

- A.** The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the Contract.
- B.** CMHA will provide the Contractor with the date, time, and place of the conference.

### **4.2. Certificate of Insurance**

**4.2.1.** Before commencing work, the Contractor and each Subcontractor shall furnish CMHA with certificates of insurance showing the minimum insurance coverage is in force and will insure all operations under the Contract.

### **4.3. Building and Trade Permits, Licenses and Codes**

**4.3.1.** The Contractor shall give all notices and comply with all applicable laws, ordinances, codes, rules, and regulations.

- A.** Notwithstanding the requirement of the Contractor to comply with the drawings and specifications in the Contract, all Work installed shall comply with all applicable laws, ordinances, codes, rules, and regulations, as may be amended by any waivers.
- B.** Before installing the Work, the Contractor shall examine all drawings and the specifications for compliance with applicable laws, ordinances, codes, rules, and regulations bearing on the work and shall immediately report, in writing, any discrepancy it may discover to the CMHA's Project Manager and/or Construction Contract Administrator and the A/E.
  - i.** If required by any governing jurisdiction, CMHA will modify the Contract by change order so that the Work on the Project will conform to the applicable laws, ordinances, codes, rules, and regulations.
- C.** If the Contractor installs any Work that does not comply with all applicable laws, ordinances, codes, rules, and regulations before providing notice hereunder to CMHA and receiving direction from CMHA, Contractor shall be responsible for all costs resulting from any removal, demolishing, and disposing of any Work that must be replaced or repaired.

**4.3.2.** Notwithstanding the provisions below, the Contractor shall secure and pay for all permits, fees, and licenses necessary for the proper execution and completion of Work.

- A.** Where CMHA can arrange for the issuance of all or part of these permits, fees, and licenses, without cost to the Contractor, the Contract amount shall be reduced accordingly.

### **4.4. Plan Approval and Permits**

**4.4.1.** The A/E shall facilitate the required structural, plumbing, HVAC, and electrical plan reviews during the design phase, as required by the governing jurisdiction for securing an overall building permit to start construction.

**4.4.2.** The Contractor shall schedule and attend all intermediate and final inspections required for any permit applicable to the Work or any governing jurisdiction.

**4.4.3.** The Contractor shall schedule with the State Fire Marshal or local fire authority for the life safety inspection for occupancy permits.

**4.4.4.** The Contractor shall give the A/E and CMHA reasonable notice of the dates and times for any inspections.

- A.** The Contractor shall pay for all initial inspections and re-inspections required as a result of Contractor's failure to receive approval for its Work.

### **4.5. Trade Permits and Licenses**

**4.5.1.** The Contractor shall secure and pay the fees for any permit, inspection, or license applicable to the Contractor's particular trade.

**4.5.2.** Local Permits:

- A.** The Contractor shall secure and pay the fees for any permits, inspections, licenses, capacity charges, or tap fees required by local authorities having jurisdiction over the Project.

- i. The Contractor shall give the A/E and CMHA reasonable notice of the date(s) arranged for inspections.
- 4.5.3. [National Pollutant Discharge Elimination System \(NPDES\) Storm Water General Permit:](#)**
- A.** The A/E shall secure the NPDES general permit by submitting a [Notice of Intent \(NOI\)](#) application form to the Ohio Environmental Protection Agency at least 45 days prior to the start of construction.
    - i. The Contractor shall be a co-permittee, if required under Applicable Law.
  - B.** The A/E shall prepare and certify the storm water pollution prevention plan to provide sedimentation and erosion controls at the Project. The A/E shall prepare and process the required [Notice of Termination \(NOT\)](#) prior to Contract Completion.

## **5. ARTICLE V CONSTRUCTION REQUIREMENTS**

### **5.1. Commencement of Work on Site**

**5.1.1.** Unless CMHA agrees otherwise in writing, the Construction Stage will commence with CMHA issuing the Notice to Proceed and will terminate upon CMHA issuing a Certificate of Contract Completion to the Contractor. The Certificate of Contract Completion will be issued in accordance with the requirements of the Contract Documents and will not occur until after CMHA issues a Certificate of Substantial Completion, a Certificate of Occupancy is issued for the Project, and the Contractor has completed all items on the punch list delivered to Contractor by CMHA as provided in Article IX. The time period for Contract Completion is provided in Section 9.8.

**5.1.2.** Notice to Proceed:

- A.** The Contractor shall begin work upon the date indicated in a written Notice to Proceed from CMHA or its designee.
  - i.** The Contractor shall not begin work prior to receiving such notice.
- B.** Typically, the Notice to Proceed shall be issued within 180 days of CMHA Board of Commissioner Approval.
- C.** If the Notice to Proceed is not issued within 180 days of CMHA Board of Commissioner Approval, CMHA may, in its sole discretion, terminate the Contract without recourse from the Contractor.

### **5.2. Environmental Controls**

**5.2.1.** The Contractor shall protect its Work and materials from damage from water, moisture, and other weather, including damage from water run-off from other property or structures, and damage from heat, cold, and humidity.

**5.2.2.** Contractor is not authorized to use permanent HVAC system without express written authorization from CMHA.

**5.2.3.** Until the permanent HVAC system is complete and available for use:

- A.** The Contractor shall make arrangements and pay for installation and maintenance of temporary heating, cooling and ventilating systems; and
- B.** The Contractor shall pay the costs incurred in operating the temporary heating, cooling and ventilating systems.

**5.2.4.** When the permanent HVAC system is complete and available for use:

- A.** The Contractor shall start up and maintain operation of the permanent HVAC system, including filters, and promptly remove temporary heating, cooling and ventilating systems.
- B.** If the Project consists entirely of new construction, the Contractor shall pay the costs of energy consumed in operating the permanent HVAC system until Substantial Completion.

**5.2.5.** From the date of Substantial Completion, CMHA shall pay the cost of operating the permanent HVAC system for the occupied portion of the Project.

**5.2.6.** Use of the permanent HVAC system during construction shall not change, modify or reduce the Contractor's warranty and service obligations under the Contract Documents.

### **5.3. Construction Procedures**

**5.3.1.** The Contractor is solely responsible for and has control over all construction means, methods, techniques, sequences, and procedures, for safety precautions and programs in connection with the Work, and for coordinating all portions of the Work.

**5.3.2.** If the Contract Documents give instructions that affect construction means, methods, manners, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety of them and, except as expressly stated herein, be fully and solely responsible for the jobsite safety of the means, manners, methods, techniques, sequences, or procedures.

**5.3.3.** If the Contractor determines that the means, methods, manners, techniques, sequences, or procedures specified in the Contract Documents may not be safe, the Contractor shall give timely written notice to CMHA.

- A.** The Contractor shall not proceed with that portion of the Work without further written instructions from CMHA.

**5.3.4.** Additional Contractor Responsibilities:

- A. The Contractor shall lay out and coordinate all lines, levels, elevations, and measurements for all of the Work, coordinate and verify existing conditions, and notify the A/E and CMHA of discrepancies and conflicts before proceeding with installation or excavation.
- B. The Contractor shall perform all cutting, fitting, or patching required for the Work and shall not endanger the Project by cutting, excavating, or otherwise altering the Project or any part of it.
- C. If the Design requires sleeves for completing the specified Work, the Contractor and all Subcontractors shall coordinate to furnish and install the sleeves.
  - i. The Contractors are responsible for the exact location of and size of all holes and openings required to be formed or built for the Work.
- D. The Contractor's patching shall match and blend with the existing adjacent surfaces.
- E. In addition to the items herein, The Contractor is responsible for all items in REF\_Ref449941734 \h CONTRACTOR'S RESPONSIBILITIES.

#### **5.4. Utilities**

##### **5.4.1. Availability and Use of Utilities**

- A. If CMHA has existing access to utilities, CMHA shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and service as specified herein so long as the utility use does not interfere with CMHA's operations.
  - i. Unless otherwise provided in the Contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to CMHA or where the utility is produced by CMHA, at reasonable rates as determined by CMHA.
  - ii. The Contractor shall carefully conserve any utilities furnished by CMHA without charge.
- B. The Contractor, at its expense and in a manner satisfactory to CMHA, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of each utility used for the purpose of determining charges.
  - i. Before final acceptance of the Work by CMHA, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

##### **5.4.2. The Contractor shall comply with the requirement of the Ohio Revised Code, including ORC.**

- A. In addition, before starting excavation or trenching, the Contractor shall determine the location of any underground utilities and notify any public authority or utility having jurisdiction over the Project and secure any required approval.

##### **5.4.3. The Contractor shall give CMHA at least two (2) business days advance notice of excavation of underground utilities registered with the Ohio Underground Utility Protection Services ("OUPS") and underground utilities shown on the drawings and Specifications who are not registered member of OUPS.**

- A. The Owner of an underground utility is required within 48 hours' notice to stake, mark, or otherwise designate the location for its utilities in the construction area together with its approximate depth.
- B. In the event that any underground utility owner fails to timely perform, the Contractor shall notify the A/E and contact CMHA regarding the failure of the underground utility to timely perform its work.

##### **5.4.4. Water and Drainage**

- A. The Contractor shall provide water necessary for the Work until the permanent plumbing system is available for use.
- B. The Contractor shall provide all temporary drainage and all dewatering necessary for the Work and shall employ pumps, trenches, drains, sumps, and any other equipment necessary or required to provide satisfactory working conditions for the protection, execution, and completion of the Project. The Contractor shall be responsible for determining the specific means and methods to be used for dewatering.
- C. The Contractor shall make arrangements and pay for installation and maintenance of temporary plumbing systems until the permanent plumbing system is available for use.
- D. When the permanent plumbing system is complete and available for use:
  - i. The Contractor shall start up and maintain operation of the permanent plumbing systems, and make arrangements and pay for removal of temporary plumbing systems.
  - ii. If the Project consists entirely of new construction, the Contractor shall pay the costs of water consumed and sewage charges until Substantial Completion.

- iii. If the Project is a renovation of an existing building or structure, addition(s) to an existing building or structure, or any combination of new construction and renovation work that does not allow separate metering of utilities, CMHA shall pay the costs of water consumed and sewage charges.
  - (a) If separate metering of utilities is available, the Contractor and CMHA will pay the costs of their respective use.

- E. After the date of Substantial Completion, CMHA shall pay the costs of water consumed and sewage charges for the occupied portion of the Project.
- F. Use of the permanent plumbing system during construction shall not change, modify, or reduce the Contractor's warranty and service obligations under the Contract Documents.

**5.4.5. Electric Service**

- A. The Contractor shall provide temporary light and power; pay the charges for temporary electric service, installation, and removal if required.
- B. If the Project consists entirely of new construction, the Contractor shall pay the cost of energy consumed until Substantial Completion.
- C. If the Project is a renovation of an existing building or structure, addition(s) to an existing building or structure, or any combination of new construction and renovation work that does not allow separate metering of utilities, CMHA shall pay the cost of energy consumed.
  - i. If separate metering of utilities is available, the Contractor and CMHA will pay the costs of their respective use.
- D. From the date of Substantial Completion, CMHA shall pay the cost of energy consumed for the occupied portions of the Project.
- E. Use of the permanent electrical system during construction shall not change, modify, or reduce the Contractor's warranty and services obligations under the Contract Documents.

**5.4.6. Payment of Utility Services**

- A. Unless otherwise expressly stated in the Contract Documents, Contractor shall reimburse CMHA the cost of utility services during the Construction Period.
- B. Unless otherwise expressly stated in the Contract Documents, payment for reimbursement of CMHA for the cost of utility services during the Contract Period shall be made directly to CMHA.
  - i. If payment is not received, CMHA may deduct the cost of utility services from payments otherwise due to the Contractor.
  - ii. If the payments otherwise due to the Contractor are not sufficient to fully reimburse CMHA, either Contractor or its surety shall make whatever payments are necessary to fully reimburse CMHA.
- C. Process for Payment:
  - i. Reimbursement from the Contractor shall be performed on a quarterly basis unless a more frequent payment schedule is agreed upon between CMHA and the contractor prior to start of the project.

**5.4.7. Hoisting Facilities**

- A. The Contractor shall erect and maintain any hoisting equipment required for its Work.
- B. If the electric service requirements of hoisting facilities differ from that available at the Site, the Contractor shall provide and pay for all necessary connections.
- C. If a permanent elevator is identified in the Contract Documents to be used for hoisting materials or personnel during construction, the Contractor shall furnish an extended warranty and service contract in effect until the expiration of the Correction Period.

**5.4.8. Interruption of Existing Services**

- A. Whenever it becomes necessary to interrupt existing services in use by CMHA or its tenants, including, but not limited to, sewer, water, gas, steam lines, electric, telephone, and cable service, the Contractor shall continue the associated Work on a non-stop 24-hour per day basis until that Work is completed and the service restored, or perform the associated Work at an alternate time as required by and in coordination with CMHA.
- B. Before beginning that Work, the Contractor shall apply in writing to, and receive approval in writing from CMHA to establish a time when interruption of the service will cause a minimum of interference with the activities of CMHA and its tenants.

### **5.5. Construction Supervision**

- 5.5.1.** Unless waived by CMHA in writing, the Contractor shall provide continuous supervision at the Site through a competent project manager or superintendent when any Work is being performed.
  - A.** The Contractor's project manager or superintendent shall not be involved with any work for Contractor other than the Project.
- 5.5.2.** The Contractor's project manager and superintendent shall each have responsibility and authority to act on behalf of the Contractor.
  - A.** All communication to the Contractor's project manager and superintendent shall be binding as if given directly by the Contractor.
- 5.5.3.** The Contractor shall submit an outline of the qualifications and experience of the Contractor's proposed project manager and superintendent, including references, to CMHA no later than two (2) business days after request from CMHA.
  - A.** For all Subcontracts in excess of \$200,000 and for all other Subcontracts requested by CMHA, the Contractor shall submit an outline of the qualifications and experience of the Subcontractor's proposed project manager and proposed superintendent, including references, to CMHA no later than two (2) business days after CMHA's request.
  - B.** CMHA may reject the Contractor or Subcontractor's proposed project manager and/or proposed superintendent.
    - i.** If CMHA does not notify the Contractor of the rejection within thirty (30) calendar days after receiving the required information, it shall then indicate that CMHA does not have an objection, but does not affect CMHA's rights under the Contract Documents or any other provision relative to the project manager or superintendent.
  - C.** If CMHA rejects the Contractor or Subcontractor's proposed project manager or proposed superintendent, the Contractor shall replace, or cause the Subcontractor to replace the project manager or superintendent (as appropriate) with someone acceptable to CMHA at no additional cost.
- 5.5.4.** If CMHA does not object the proposed project manager or superintendent, the Contractor and its Subcontractor shall not replace their respective project managers and superintendents without prior written approval of CMHA.

### **5.6. Construction Progress Schedule**

- 5.6.1.** The Contractor shall, no later than seven (7) calendar days of the issuance of the Notice to Proceed or another period of time determined by the CMHA, prepare and submit to CMHA for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the Work, the dates on which the Contractor contemplates starting and completing the several salient features of the Work (including acquiring labor, materials, and equipment).
  - A.** The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period.
    - i.** The Chart must be in a Critical Path Method (CPM) format.
  - B.** If the Contractor fails to submit a schedule, that is acceptable to CMHA, within the time prescribed, CMHA may withhold approval of progress payments or take other remedies under the Contract until Contractor submits the required schedule that is acceptable to CMHA.
- 5.6.2.** The Contractor shall monitor the Work for conformance with the Construction Progress Schedule and shall initiate revisions as required herein.
- 5.6.3.** The Contractor shall enter the actual progress on the Construction Progress Schedule as required by CMHA, and after each update, Contractor shall immediately deliver three copies of the annotated Construction Progress Schedule to CMHA.
  - A.** If CMHA determines, upon the basis of inspection conducted, herein that the Contractor is not meeting the approved Construction Progress Schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by CMHA, without additional cost to CMHA.
  - B.** If the Contractor is not meeting the approved Construction Progress Schedule, CMHA may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as CMHA deems necessary to demonstrate how the approved rate of progress will be regained.

- 5.6.4.** Failure of the Contractor to comply with the requirements of CMHA shall be grounds for a determination by CMHA that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the Contract.
- A.** Upon making this determination, CMHA may terminate the Contractor's right to proceed with the work, or any separable part of it.
- 5.6.5.** Unless otherwise agreed to in writing, the Contractor shall develop the Construction Progress Schedule using commercially available, personal computer software acceptable to CMHA and shall submit all baseline and updated schedules to CMHA in the schedule's native format.
- A.** This submission shall be in both electronic and paper format.
- 5.6.6.** The Construction Progress Schedule shall not exceed the time limits under the Contract Documents, shall provide for reasonable, efficient, and economical execution of the Project and shall relate to the entire project to the extent required by the Contract Documents.
- A.** In the event that a Construction Progress Schedule submitted by Contractor shows a completion date that extends beyond the Contract Time permitted to Contractor in the Contract Documents, such Construction Progress Schedule shall not be deemed to modify the Contract Time permitted in the Contract Documents. The Contract Time can only be changed by a properly executed Change Order.
- 5.6.7.** The Contractor shall use the Construction Progress Schedule to plan, organize, and execute the Project, record and report actual performance and progress, and show how it plans to coordinate and complete all remaining work by Contract Completion within applicable Milestones.
- A.** The Project participants shall use the Construction Progress Schedule as a tool for scheduling and reporting sequences and/or the progress of the Work.
- B.** The Contractor shall provide a clear graphics legend and other data including without limitation Milestone dates, constraints, and other items required by the Project and CMHA.
- C.** Each submission shall show CMHA's Project number and Project name, and provide a signature approval and date line for the Contractor.
- 5.6.8.** The Contractor shall provide the following in each Construction Progress Schedule:
- A.** Activity identification and description of each activity broken down to a maximum duration that is appropriate for the activity;
- B.** Contractor or Subcontractor performing each task;
- C.** Contractor's resources and crew size for each activity; and
- D.** Provide early start, early finish, late start, late finish dates.
- 5.6.9.** Each Construction Progress Schedule shall show predecessor activities and successor activities for each activity, entry free float, total float and percentage of completion, and identify the appropriate predecessors and successors for all related activities.
- 5.6.10.** The Construction Progress Schedule shall show all submittal dates, review and approval durations for coordination drawings, Shop Drawings, other action submittals and mock-up Work.
- 5.6.11.** The Contractor shall submit the initial and all updates of the Construction Progress Schedule in graphic and tabular form to CMHA.
- A.** With each monthly Construction Progress Schedule update, the Contractor shall include a list of all changes to the previously approved baseline schedule or monthly updated schedule.
- 5.6.12.** The Construction Progress Schedule shall be managed using early start dates and early finish dates.
- A.** The Contractor must exhaust all existing float before claiming additional time for a Change Order.
- 5.6.13.** The Contractor's failure to submit and properly maintain an approved Construction Progress Schedule may result in withholding payment in accordance with the Contract Documents.
- 5.6.14.** For each Progress Meeting, the Contractor shall provide a 2-6 week look-ahead schedule, as appropriate for the Project.
- 5.6.15.** On a monthly basis, the Contractor shall prepare and submit to CMHA a written report describing:
- A.** Activities begun or finished during the preceding month;
- B.** Activities in progress and expected completion;
- C.** Activities to be started or finished in upcoming month including, without limitation, the Contractor's workforce size and total resource hours associated with those activities;
- D.** Recommendations for adjusting the Construction Progress Schedule to meet Milestone dates, the Substantial Completion date and the Contract Completion date; and



E. Other information requested by CMHA.

**5.6.16.** If it is apparent that the Contractor may be unable to meet Critical Path activities, Milestone completion dates, the Substantial Completion date(s) or the Contract Completion date, CMHA shall direct the Contractor to submit within three (3) business days a Recovery Plan to avoid or minimize a delay in the Project.

**5.6.17.** A Recovery Plan shall include, without limitation, adjustments to one or more of the following:

- A. Workforce
- B. Hours per shift
- C. Shifts per workday
- D. Workdays per week
- E. Equipment
- F. Activity logic

**5.6.18.** If CMHA approves the Recovery Plan, the Contractor shall prepare a revised Construction Progress Schedule within three (3) business days to CMHA.

A. If CMHA rejects the Recovery Plan, the Contractor shall submit, within three (3) days of CMHA's rejection, an alternate Recovery Plan to CMHA in writing for review and in accordance the Contract Documents.

**5.6.19.** The Contractor shall update the Construction Progress Schedule on a monthly basis, or other interval as approved by CMHA, in accordance with the Contract Documents.

A. The Contractor shall submit a tabular copy showing all changes to the previously approved schedule including, without limitation, logic, float, and actual start date of activities.

i. The original or initially approved Construction Progress Schedule and all subsequent Construction Progress Schedules submitted by the Contractor, and accepted by CMHA, shall serve as an affirmation that the Contractor agrees to meet the applicable requirements and updated Construction Progress Schedule.

B. The Contractor's failure to timely submit updated Construction Progress Schedules as deemed necessary by CMHA may result in withholding payments in.

### **5.7. Progress Meetings**

**5.7.1.** Unless otherwise indicated in writing, CMHA shall schedule weekly Progress Meetings for the Contractor and other persons involved in the Project as deemed necessary for coordination of the Work by CMHA, including Contractor's Subcontractors on the Project.

A. The purpose of the Progress Meeting is to review progress on the Project during the previous week, discuss anticipated progress during the following weeks, review critical operations, and discuss critical problems.

**5.7.2.** The Contractor shall be represented at every Progress Meeting by a person authorized with signatory authority to make decisions regarding possible modifications of the Contract Documents or Construction Progress Schedule.

A. CMHA shall notify the Contractor and other persons involved in the Project of the time and place of the Progress Meeting that shall thereafter be the same day and hour of the week for the duration of the Project, unless CMHA notifies the Contractor and other Persons involved in the Project of a different day and hour at least two (2) business days in advance.

B. The Contractor shall have any of its Subcontractors attend the Progress Meeting as determined by the Contractor, or as requested by CMHA.

C. Unless otherwise indicated in writing, CMHA shall prepare a written report of each Progress Meeting and distribute the report to the A/E and the Contractor.

D. If any person in attendance objects to anything in a report of a Progress Meeting, the person shall notify CMHA and any other affected person in writing explaining the objections within seven (7) calendar days of receipt of the Progress Meeting report.

E. The report of each Progress Meeting shall reflect any objection made to the report of the previous Progress Meeting and any response.

### **5.8. Project Coordination**

**5.8.1.** If determined needed by CMHA, the Contractor or Subcontractor(s), the Contractor shall prepare Coordination Drawings for any Coordination Area.

- A. The Contractor shall prepare the Coordination Drawings with Computer-Aided Design (“CAD”) or Building Information Modeling (“BIM”) software acceptable to CMHA.
  - B. The Coordination Drawings shall show the all affected work, including without limitation, plan and elevation dimensions.
- 5.8.2.** After the Contractor completes the Coordination Drawings, the Contractor shall forward a copy of the Coordination Drawings to CMHA.
- A. The A/E shall report any concerns in writing to the Coordination Participants within fourteen (14) calendar days after receiving the Coordination Drawings.

**5.9. Additional Tests and Inspections**

- 5.9.1.** If the A/E or CMHA determines that any portion of the Work requires special inspection, testing, or approval not otherwise required under the Contract Documents, the A/E and/or CMHA shall order such inspection, testing, or approval.
- 5.9.2.** If the special inspection, testing, or approval reveals Defective Work, the Contractor shall pay all associated costs and will not be entitled to any related adjustment of the Contract Times.
- A. Those costs may include without limitation:
    - i. The cost of special inspection, testing, or approval;
    - ii. The cost of additional special inspections, testing, or approvals, to evaluate Remedial Work;
    - iii. The cost of correcting Defective Work; and
    - iv. All related CMHA-incurred fees and charges of contractors, engineers, architects, attorneys, and other professionals.
- 5.9.3.** CMHA may deduct the costs described under the Contract Documents from payments then or thereafter due the Contractor.
- A. If payments then or thereafter due to the Contractor are not sufficient to cover those amounts, the Contractor or its surety shall immediately pay the amount of the insufficiency to CMHA.
- 5.9.4.** If the special inspection, testing, or approval reveals that the Work complies with the Contract Documents, and the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of the special inspection, testing, or approval, the Contractor may file a Claim by requesting a Change Order by giving written notice within seven (7) calendar days after the special inspection, testing, or approval.
- 5.9.5.** If the Contractor is aware of the need of an inspection, testing, or approval, or of a need to have any inspection, testing, or approval completed by a particular time to avoid delay, then the Contractor shall timely communicate such information to CMHA.
- 5.9.6.** Except as described in Additional Tests and Inspections, CMHA shall pay for any inspection, testing, or approval that did not become a requirement until after award of the Contract.
- 5.9.7.** The Contractor shall coordinate with and give CMHA reasonable notice of the anticipated dates of all inspections, testing, or approvals.

**5.10. Review of Contract Documents**

- 5.10.1.** Before starting each portion of the Work, the Contractor shall carefully study and compare the various Contract Documents relative to that portion of the Work, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the Site affecting it.
- 5.10.2.** If the Contractor finds any perceived ambiguity, conflict, error, omission, or discrepancy on or between any of the Contract Documents, or between any of the Contract Documents and any Applicable Law, the Contractor, before proceeding with the Work, shall promptly submit a Request for Information (“RFI”) to CMHA for an interpretation or clarification.
- A. Before submitting any RFI, the Contractor shall carefully review the Contract Documents to ensure that the Contract Documents do not answer the RFI.
  - B. If Contractor indicates that the information requested in the RFI affects the critical path of the Project’s Construction Progress Schedule and attaches the portion of the Project’s Construction Progress Schedule that verifies that the information requested in the RFI affects the critical path, CMHA shall make all reasonable efforts to respond to the RFI within seven (7) business days of receiving the RFI.

**5.10.3.** If the Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of clarifications or instructions issued in response to a RFI, the Contractor may submit a Claim by requesting a Change Order by giving notice within three (3) business days of receiving the RFI response.

**5.10.4.** If Contractor does not notify CMHA in accordance with 5.10.3 or any other section that addresses adjustments to the Contract Sum and Contract Time, the Contractor will have accepted the RFI response without an adjustment to the Contract Sum or Contract Time and irrevocably waives his right to submit or request an adjustment to the Contract Sum and/or Contract Time.

**5.10.5. Frivolous RFI**

**A.** If the Contractor submits a frivolous RFI, as determined by CMHA, Contractor shall be liable to CMHA for the costs related to the review and response of the RFI.

**i.** CMHA may deduct the costs described herein from payments then or thereafter due the Contractor.

**ii.** If payments then or thereafter due to the Contractor are not sufficient to cover CMHA's costs, the Contractor or its surety shall immediately pay the amount of the insufficiency to CMHA.

**B.** Frivolous RFIs may be returned unanswered.

**5.10.6.** Delays caused by improper or frivolous RFI's are the sole responsibility of the Contractor who shall waive the Contractor's right to seek adjustments to the Contract Sum and Contract Time.

**5.11. Site Investigation and Conditions Affecting the Work**

**5.11.1.** The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including, but not limited to:

**A.** Conditions bearing upon transportation, disposal, handling, and storage of materials;

**B.** The availability of labor, water, electric power and roads;

**C.** Uncertainties of weather, river stages, tides, or similar physical conditions at the site;

**D.** The conformation and conditions of the ground; and

**E.** The character of equipment and facilities needed preliminary to and during work performance.

**5.11.2.** The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by CMHA, as well as from the drawings and specifications made part of this contract.

**A.** Any failure of the Contractor Site Investigation and Conditions Affecting the Work will not relieve the Contractor from responsibility for properly estimating or properly evaluating the difficulty and cost of successfully performing the Work without additional expense to CMHA.

**5.11.3.** CMHA assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by CMHA.

**A.** Nor does CMHA assume responsibility for any understanding reached or representations made concerning conditions which can affect the Work by any of its officers or agents before execution of this Contract, unless that understanding or representation is expressly stated in this Contract.

**5.12. Protection of the Project**

**5.12.1.** The Contractor shall protect the Project from weather and maintain the Work and all materials, apparatus, and fixtures free from injury or damage until Substantial Completion of the Work.

**A.** The Contractor shall at all times cover or protect the Work and materials.

**B.** The Contractor, at its own expense, shall remove, and replace with new, any Work damaged as a result of the Contractor's failure to provide coverage or protection.

**C.** After the date of Substantial Completion of the Work, CMHA is responsible for protecting and maintaining all materials, apparatus, and fixtures for the occupied portion of the Project from injury or damage.

**5.12.2.** The Contractor shall protect the Project and existing or adjacent property from damage at all times and shall erect and maintain necessary barriers, lateral support, furnish and keep lighted necessary danger signals at night, and take reasonable precautions to prevent injury or damage to individuals or property.

**5.12.3. Temporary Heating**

- A. The Contractor shall provide and pay for temporary heating, covering, and enclosures necessary to protect all Work and materials against damage by dampness and cold, to dry out the Work, and to facilitate the completion of Work.
- B. Any permanent heating equipment used by Contractor or Subcontractors shall be turned over to CMHA in the condition and at the time required by the specifications.
- 5.12.4. The Contractor shall not load, or permit any part of the Project to be loaded, in any manner that endangers the Project, or any proportion thereof.
  - A. The Contractor shall not subject any part of the Project or existing or adjacent property to stress or pressure that endangers the Project or property.
- 5.12.5. **Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements**
  - A. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work sites, which are not to be removed under this Contract, and which do not unreasonably interfere with the Work required under this Contract.
  - B. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place.
    - i. If any limbs or branches of trees are broken during performance of this Contract, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as specifically directed by CMHA.
  - C. The Contractor shall protect from damage all existing improvements and utilities (1) at or near the work site and (2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor.
    - i. Prior to disturbing the ground at the construction site, the Contractor shall ensure that all underground utility lines are clearly marked.
  - D. The Contractor shall shore up, brace, underpin, secure, and protect as necessary all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be affected by the excavations or other operations connected with the construction of the Project.
  - E. Any equipment temporarily removed as a result of work under this Contract shall be protected, cleaned, and replaced in the same condition as at the time of award of this Contract.
  - F. New work which connects to existing Work shall correspond in all respects with that to which it connects and/or be similar to existing Work unless otherwise required by the specifications.
  - G. No structural members shall be altered or in any way weakened without the written authorization of CMHA, unless such work is clearly specified in the Plans or specifications.
  - H. If the removal of the existing Work exposes discolored or unfinished surfaces, or work out of alignment, such surfaces shall be refinished, or the material replaced as necessary to make the continuous work uniform and harmonious.
    - i. This, however, shall not be construed to require the refinishing or reconstruction of dissimilar finishes previously exposed, or finished surfaces in good condition, but in different plans or on different levels when brought together by the removal of intervening work, unless such refinishing or reconstruction is specified in the plans or specifications.
  - I. The Contractor shall give all required notices to any adjoining or adjacent property owner or other party before commencement of any Work.
  - J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs arising out of or related to the settlement or the loss of lateral support of adjoining property, any damages from changes in topography affecting drainage, and from all loss or expense and all damages for which CMHA may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.
  - K. The Contractor shall repair any damage to vegetation, structures, equipment, utilities, or improvements, including those that are the property of a third party, resulting from failure to comply with the requirements of this Contract or failure to exercise reasonable care in performing the work.

- i. If the Contractor fails or refuses to repair the damage promptly, CMHA may have the necessary Work performed and charge the cost to the Contractor.

**5.12.6. Vibration, Noise, and Dust Control**

- A. The Contractor shall provide controls/barriers for vibrations, noise, and dust control in occupied buildings as required by the construction operations.
- B. The Contractor will not be permitted to exhaust or release unfiltered air, dust, construction debris, or other undesirable products into the exterior atmosphere or into occupied areas of the building.
  - i. CMHA may limit or stop the Work if the Contractor does not maintain proper air-quality standards.
  - ii. Such stoppage may result in a charge to the Contractor.
- C. In certain occupied buildings, tasks might be of such a nature that noise and vibration cannot be tolerated.
  - i. In such spaces and as approved by CMHA, Work may be scheduled for other than normal working hours.
  - ii. The Contractor is cautioned that weekend or overtime work, if required, shall be performed at no additional cost.
  - iii. Permission to work other than standard hours shall be received from CMHA prior to the occurrence.
  - iv. Weekend or overtime Work shall be reflected in the Construction Progress Schedule.
- D. The Contractor is responsible for vibration control and control of transmission of noise arising from the Work.
- E. Principal considerations that shall be given to noise and vibrations control are:
  - i. Noise control in compliance with Occupational Safety and Health Administration (OSHA) shall be for all areas of the facility, including equipment rooms, boiler rooms, and fan rooms.
  - ii. Vibration control to limit sound produced by construction equipment, and for protection of the equipment existing in the building and the building structure.
  - iii. Vibration control to provide for the maximum usefulness of the facility by keeping levels of vibration within ranges conducive to peaceful enjoyment of residential living or work or other uses for which the facility was designed

**5.13. General Warranty - Materials, Equipment and Workmanship**

- 5.13.1.** The Contractor warrants to CMHA and A/E that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise.
  - A. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit.
  - B. Work, materials, or equipment not conforming to these requirements may be considered defective.
  - C. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage.
  - D. If required by the A/E, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.
- 5.13.2.** To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA from and against all claims, (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, arising out of or relating to the Contractor's breach of any warranty obligations.
  - A. The Contractor's obligation shall be joint and several.

**5.13.3. Additional Warranties**

- A. The Contractor gives the Owner the following additional warranties:
  - i. If the Contractor's Work includes all or part of the exterior roofing system, provided that the A/E has designed the roofing system to be weather tight, the Contractor warrants that the roofing system will be weather tight; and

- ii. If the Contractor's Work includes all or part of the exterior wall system, provided that the A/E has designed the wall system to be weather tight, the Contractor warrants that the wall system will be weather tight.

- (a) Weather tight shall mean the roofing and/or wall system does not permit any infiltration of water in any form that would have any adverse effect on the Owner's operations or the Project.

**5.13.4.** The Contractor shall, prior to Contract Completion and as a condition precedent to final payment to Contractor, assign to CMHA all manufacturer's warranties related to the materials and labor used in the Work and further agrees to perform the Work in such manner as to preserve any and all such manufacturer's warranties and deliver to the A/E the warranties, project manual, operating procedures, and other materials related to each of the building systems and materials included in the Contractor's Work and as required by the Specifications.

**5.13.5.** Upon notice of the breach of any of the warranties or guarantees identified herein, or any other warranties or guarantees under the Contract Documents, the Contractor, in addition to any other requirements in the Contract Documents, shall commence to correct such breach and all damage resulting therefrom within two (2) business days from written notice thereof, thereafter use its best efforts to correct such breach and damage to the satisfaction of CMHA and A/E, and, except when an extension of time is granted in writing by CMHA, correct such breach and damage to the satisfaction of CMHA within thirty (30) calendar days of such notice, or such other time as provided in the notice; provided, however, that if such notice is given after final payment the 2-day period shall be extended to seven (7) calendar days.

- A. If the Contractor fails to commence to correct such breach and damage, or to correct such breach or damage as provided above, the Owner, without prejudice to any of its other rights or remedies at law or under the Contract Documents, may correct the breach without further notice to Contractor.
- B. The Contractor shall pay the Owner's reasonable costs and expenses incurred in connection with the or related to such correction and/or breach, including without limitation the Owner's administrative, legal, and consulting expenses and additional service fees of the A/E.
- C. The foregoing warranties and obligations of the Contractor shall survive final payment and/or termination of the Contract and shall not be limited by any other terms contained in the Contract Documents.
- D. If the Contractor fails to pay the Owner any amounts due hereunder, the Contractor shall pay the Owner, in addition to the amounts due, a late payment fee of one and one-half percent (1.5%) per month for each month or part thereof that the payments are not paid when due.

**5.13.6.** Contractor shall bring to or store at the Site only the materials and equipment required for the Work.

- A. If possible, materials and equipment should be installed in their final positions when brought to the Site.

**5.13.7.** All equipment, material, and articles furnished under this Contract shall be of the most suitable grade for the purpose intended, unless otherwise specifically provided in this Contract.

- A. References in the Contract to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition.
- B. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of, and as approved by CMHA in writing, is equal to that named in the specifications, unless otherwise specifically provided in this Contract so long as Contractor has submitted a substitution request to CMHA.
- C. If the substituted material has not been approved by CMHA in writing, the substituted material may be considered Defective Work by CMHA or A/E.

**5.13.8. Approval of Equipment and materials**

- A. The Contractor shall obtain CMHA's approval of the machinery and mechanical and other equipment to be incorporated into the work.
  - i. When requesting approval, the Contractor shall furnish to CMHA the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment

- ii. When required by this contract or by CMHA, the Contractor shall also obtain CMHA's approval of the material or articles which the Contractor contemplates incorporating into the work.
- iii. When requesting approval, the Contractor shall provide full information concerning the material or articles.
- iv. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.
- B. When required by the specifications or CMHA, the Contractor shall submit appropriately marked samples (and certificates related to them) for approval at the Contractor's expense, with all shipping charges prepaid.
  - i. The Contractor shall label, or otherwise properly mark on the container, the material or product represented, its place of origin, the name of the producer, the Contractor's name, and the identification of the construction project for which the material or product is intended to be used.
- C. Certificates shall be submitted electronically in triplicate, describing each sample submitted for approval and certifying that the material, equipment or accessory complies with contract requirements.
  - i. The certificates shall include the name and brand of the product, name of manufacturer, and the location where produced.
- D. Approval of a sample shall not constitute a waiver of CMHA's right to demand full compliance with contract requirements.
  - i. Materials, equipment and accessories may be rejected for cause even though samples have been approved.
- E. Wherever materials are required to comply with recognized standards or specifications, such specifications shall be accepted as establishing the technical qualities and testing methods, but shall not govern the number of tests required to be made nor modify other Contract requirements.
  - i. CMHA may require laboratory test reports on items submitted for approval or may approve materials on the basis of data submitted in certificates with samples.
  - ii. Check tests will be made on materials delivered for use only as frequently as CMHA determines necessary to insure compliance of materials with the specifications.
  - iii. The Contractor will assume all costs of retesting materials which fail to meet contract requirements and/or testing materials offered in substitution for those found deficient.
- F. After approval, samples will be kept in the Project office until completion of work.
  - i. They may be built into the work after a substantial quantity of the materials they represent has been built in and accepted.
- G. **Requirements concerning lead-based paint**
  - i. The Contractor shall comply with the requirements concerning lead-based paint contained in the Lead-Based Paint Poisoning Prevention Act.

#### **5.13.9. Substitutions**

- A. If the Contractor provides approved Substitutions that require changes to the Contract Documents, the Contractor shall be solely responsible for the additional costs incurred as a result, including without limitation changes to the design by the A/E.
- B. CMHA shall consider Requests for Substitutions after the bid opening only when the Contractor can conclusively demonstrate CMHA the following conditions:
  - i. The specified Basis of Design Components, Acceptable Components, or previously approved Substitutions through no fault of the Contractor are not available; or
  - ii. The specified Basis of Design Components, Acceptable Components, or previously approved Substitutions will not perform as designed or intended.
- C. The Contractor's incorporation of unapproved Substitutions in the Work shall constitute Defective Work.
- D. If the Contractor provides an unacceptable Component, the Contractor shall be solely responsible for the costs of coordination and modification required.

#### **5.14. Specifications and Drawings for Construction**

- 5.14.1. The Contractor shall keep on the work site a stamped, permit set of the drawings and specifications and shall at all times give CMHA access thereto.

- A. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both.
  - B. In case of difference between drawings and specifications, the specifications shall govern.
  - C. In case of a discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to CMHA, who shall promptly make a determination in writing.
  - D. Any adjustment by the Contractor without such determination shall be at its own risk and expenses.
  - E. CMHA shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.
- 5.14.2.** Wherever in the specifications or upon the drawings the words “directed”, “required”, “ordered”, “designated”, “prescribed”, or words of like import are used, it shall be understood that the “direction”, “requirement”, “order”, “designation”, or “prescription”, of CMHA is intended.
- 5.14.3.** Where “shown,” indicated”, “detailed”, or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this Contract unless otherwise stated, the word “provided” as used herein shall be understood to mean “provide complete in one place” that is “furnished and installed”.
- 5.14.4.** “Shop Drawings” means drawings, submitted to CMHA by the Contractor, subcontractor or any lower tier subcontractor, showing in detail, 1) the proposed fabrication and assembly of structural elements and 2) the installations (i.e., form, fit, and attachment details) of materials of equipment.
- A. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the Contract.
  - B. CMHA may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.
- 5.14.5.** If this Contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with other Contract requirements and shall indicate its approval thereon as evidence of such coordination and review.
- A. Shop Drawings submitted to the A/E without evidence of the Contractor’s approval may be returned for resubmission.
  - B. CMHA will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate CMHA’s reasons therefore.
  - C. Any Work done before such approval shall be at the Contractor’s risk.
  - D. Approval by the A/E shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this Contract, except with respect to approved variations.
- 5.14.6.** If shop drawings show variations from the Contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission.
- A. If the A/E approves any such variation and CMHA concurs, CMHA shall issue an appropriate modification to the Contract, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.
- 5.14.7.** It shall be the responsibility of the Contractor to make timely requests to CMHA for such large scale and full size drawings, color schemes, and other additional information, not already in possession, which shall be required in the planning and production of the work.
- A. Such requests may be submitted as the need arises, but each such request shall be filed with ample time to permit appropriate action to be taken by all parties involved so as to avoid delay.
- 5.14.8.** The Contractor shall electronically submit to CMHA for approval (unless otherwise indicated) all shop drawings as called for under the various headings of the specifications.
- A. As required by CMHA, the Contractor, upon completing the work under this Contract, shall furnish a complete set of drawings as finally approved.
  - B. These drawings show all changes and revisions made up to the time the work is completed and accepted.
- 5.14.9.** Specifications and Drawings for Construction shall be included in all Subcontracts at any tier.
- A. It shall be the responsibility of the Contractor to ensure that all shop drawings prepared by Subcontractors are submitted to CMHA.



**5.15. As Built Drawings**

- 5.15.1. "As-built drawings," means drawings submitted by the Contractor or subcontractor at any tier to show the construction of a particular structure or Work as actually completed under the Contract.
  - A. "As-built drawings" shall be synonymous with "Record Drawings".
- 5.15.2. As required by CMHA, the Contractor shall provide CMHA accurate information to be used in the preparation of permanent as-built drawings.
  - A. For this purpose, the Contractor shall record on one set of Contract drawings all changes from the installations originally indicated, and record final locations of underground lines by depth from finish grade and by accurate horizontal offset distances to permanent surface improvements such as buildings, curbs, or edges of walks.
- 5.15.3. As Built Drawings shall be included in all subcontracts at any tier.
- 5.15.4. It shall be the responsibility of the Contractor to ensure that all As-Built Drawings prepared by Subcontractors are submitted to CMHA.

**5.16. Project Document Maintenance and Submittal**

**A. During Construction**

- i. The Contractor shall maintain in good order at a secure location on the Site:
  - (a) A complete copy of all Contract Documents; Shop Drawings, Product Data, samples and similar required submittals; manufacturer operating and maintenance instructions; certificates; warranties; RFIs and responses thereto; and other Project-related documents, all marked currently and accurately to record field changes and selections made during construction and to show actual installation where installation varies from Work as originally shown, including the exact location and depth of underground utility lines; and
  - (b) A set of Drawings as approved by any applicable jurisdiction and Specifications.
- B. Before submitting each Contract Payment Request, the Contractor shall record all changes on the Contract Documents, neatly in a contrasting color, noting new information not shown on the original Contract Documents.
  - i. Failure to record all changes may cause payment to be withheld or delayed by CMHA.
- C. The Contractor shall keep a record of changes made to the Specifications, noting particularly any approved variation from manufacturer's installation instructions and recommendations.
- D. If the Contractor uses Shop Drawings to indicate as-built conditions, the Contractor shall cross-reference the Shop Drawing sheet numbers to the corresponding sheet numbers on the Contract Documents.
  - i. The Contractor shall note related numbers where applicable.

**5.16.2. Before Contract Completion**

- A. The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and final payment, shall organize the As-Built Documents into manageable sets, bind the sets with durable paper cover sheets, and deliver the As-Built Documents to CMHA.
- B. The Contractor's As-Built Documents submission shall include, but is not limited to:
  - i. Certificate of Occupancy;
  - ii. Inspection certificates for pressure piping, elevator, boiler, electrical, plumbing or piping purification, etc.
  - iii. Letter of Approval from the local fire authority or State Fire Marshal for the fire suppression system;
  - iv. Operation and Maintenance Manuals, organized into suitable sets of manageable size;
  - v. Indexed data bound in individual binders, with pocket folders for folded sheet information and appropriate identification marked on the front and the spine of each binder;
  - vi. Neatly and accurately marked sets of As-Built Documents, and other Contract Documents reflecting the actual construction of the Project;
  - vii. Detailed Drawings reflecting the exact location of any concealed utilities, mechanical or electrical systems, and components;
  - viii. Assignment to CMHA of all warranties and guarantees, including the most-recent address and telephone number of any Subcontractors or manufacturers;

- ix. An affidavit to certify that all Subcontractors have been paid in full for all Work performed or materials furnished for the Project;
- x. A final lien waiver for both the Contractor and all Subcontractors of any tier;
- xi. Final certified payroll reports; and
- xii. An affidavit to certify that the Contractor and each of its Subcontractors, regardless of tier, have complied with all requirements of ORC.

C. By submitting the As-Built Documents to CMHA, the Contractor certifies that its As-Built Documents are complete, correct, and accurate.

**5.17. Temporary Buildings and Transportation of Materials**

**5.17.1.** Temporary buildings (e.g., storage sheds, shops, offices, sanitary facilities) and utilities may be erected by the Contractor only with the approval of CMHA and shall be built with labor and materials furnished by the Contractor without expense to CMHA.

A. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work.

B. With the written consent of CMHA, the buildings and utilities may be abandoned and need not be removed.

**5.17.2.** The Contractor shall, as directed by CMHA, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by CMHA.

A. When materials are transported in prosecuting the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any federal, state, or local law or regulation.

B. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage.

C. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

**5.18. Facilities**

**5.18.1.** The Contractor shall provide and maintain in a clean condition:

A. Suitable facilities, including temporary facilities, equipment, services, and enclosed storage for its use at the Site;

B. Adequate space, equipment, and furnishings to conduct progress meetings, and store approved documents and permits; and

C. Adequate sanitary facilities for use by all Persons at the Site.

**5.19. Progress Cleaning**

**5.19.1.** The Contractor shall remove all waste materials, rubbish, and mud attributable to the Work in accordance with the Specifications, if applicable, and to an appropriate disposal location at, or near, the Site.

**5.19.2.** The Contractor shall perform weekly broom cleaning of hard flooring surfaces in the area of the Work.

**5.19.3.** The Contractor shall remove, at the end of each working day or more frequently, as appropriate, for the Project, all waste materials and rubbish from the disposal location at, or near, the Site.

**5.19.4.** The Contractor shall remove, as appropriate for the Project or as the A/E or CMHA directs, any waste materials or rubbish from areas adjacent to the Project.

**5.19.5.** The Contractor shall dispose of waste materials, rubbish, and construction debris in a lawful manner in approved recycling facilities or landfills and record of such disposal shall be available upon written request of CMHA.

**5.19.6.** If the Contractor fails to clean up during the progress of the Work, CMHA may clean up on behalf of the Contractor and at the Contractor's expense.

A. If the Contractor fails to maintain the areas adjacent to the Project clean and free of waste materials and rubbish, CMHA may also direct the local jurisdiction responsible for the area to have the area cleaned to its satisfaction at the Contractor's expense.

B. CMHA may deduct the cleaning costs from payments then or thereafter due the Contractor.

i. If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to CMHA.

**5.19.7.** The Contractor shall remove excavated material and spoil to a suitable off-site location approved by CMHA.

- A. If CMHA designates a location on its property for disposal or storage of clean topsoil and/or subsoil in the Contract Documents, the Contractor shall remove such materials to the designated location.

**5.20. Use of Premises**

**5.20.1.** The Contractor shall use corridors, stairs, and elevators as designated by CMHA and only during those times that are designated by CMHA.

- A. The Contractor shall exercise extreme care to not exceed the carrying capacity of elevators or damage the cab interior in any way.

**5.20.2.** Loitering or wandering through interior of buildings or exterior grounds outside the limits of the Work will not be permitted.

**5.20.3.** The Contractor shall confine its apparatus, materials, and the operations of its workers to the limits indicated by law, ordinances, permits and the directions of CMHA.

**5.20.4.** Unless expressly required or approved by CMHA, no signs or advertising of any kind will be permitted on or about the Site, except those appearing on trucks and trailers.

**5.20.5. CMHA Use of Premises / Possession Prior to Completion**

A. CMHA shall have the right to take possession of or use any completed or partially completed part of the Work.

- i. Before taking possession of or using any work, CMHA shall furnish the Contractor a list of items of Work remaining to be performed or corrected on those portions of the Work that CMHA intends to take possession of or use.
- ii. However, failure of CMHA to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the Contract.
- iii. CMHA's possession or use shall not be deemed acceptance of Work under the Contract.

B. While CMHA has such possession or use, the Contractor shall be relieved of the responsibility for:

- i. The loss of or damage to the Work resulting from CMHA's possession or use, notwithstanding the terms herein;
- ii. All maintenance costs on the areas occupied; and
- iii. Furnishing heat, light, power, and water used in the areas occupied without proper remuneration therefore.

C. If requested by the Contractor and if prior possession or use by CMHA delays the progress of the Work or causes additional expense to the Contractor, an equitable adjustment shall be made in the Contract Sum, the Contract Time, or both, and the Contract shall be modified in writing accordingly.

**5.21. Smoking and Tobacco Products**

**5.21.1.** Smoking is not permitted at any property under construction, unless CMHA has a specifically designated area for smoking, and is not permitted within 50 feet of any entrance of a CMHA owned building.

- A. This prohibition applies to new construction and rehabilitation.
- B. The Contractor shall enforce these restrictions on any individual employed by the Contractor, or a Subcontractor.

**5.22. Correction of the Work**

**5.22.1. Before Substantial Completion**

A. If the Contractor provides Defective Work or fails or neglects to perform the Work in accordance with the Construction Progress Schedule, CMHA or the A/E may issue a written notice to the Contractor and Contractor's Surety directing the Contractor to correct the Defective Work or recover schedule deficiencies.

- i. Unless otherwise specified in that written notice, the Contractor shall begin to correct the Defective Work and recover the schedule deficiencies within no more than three (3) business days after CMHA issues the written notice.

B. If the Contractor fails to commence and diligently pursue correction of Defective Work or recovery of schedule deficiencies within three (3) business days of Contractor's receipt of written notice from CMHA or the A/E, CMHA may correct the Defective Work or take action to recover schedule deficiencies without giving further notice to the Contractor or Contractor's Surety.

**5.22.2. During the Correction Period**

- A. If CMHA issues a notice during the Correction Period, CMHA may correct the Defective Work itself without giving further notice to the Contractor or Contractor's Surety if the Contractor fails to:
  - i. Notify CMHA in writing of the Contractor's intent to correct the Defective Work within three (3) business days after CMHA issues the notice; and
  - ii. Thereafter promptly commence and diligently pursue correction of Defective Work.
- B. *The Correction Period:*
  - i. Commences in accordance with 23.1.41;
  - ii. Relates only to the Contractor's specific obligation and opportunity to correct the Work during the Correction Period;
  - iii. Does not establish a period of limitation with respect to any of the Contractor's other obligations under the Contract Documents;
  - iv. Has no relationship to the time within which CMHA may seek to enforce the Contract; and
  - v. Does not establish a period of limitation with respect to the commencement of litigation to establish the Contractor's liability under the Contract or otherwise.
- C. *After the Correction Period:*
  - i. CMHA may correct, at the Contractor's expense, the Defective Work without giving further notice to the Contractor or Contractor's Surety if the Contractor or Contractor's surety fails to
    - (a) Notify CMHA in writing of the intent to correct the Defective Work; and
    - (b) Promptly commence and diligently pursue correction of Defective Work.

**5.22.3. After Substantial Completion**

- A. In addition to the Contractor's other obligations under the Contract Documents, if any of the Work is found to be Defective Work after Substantial Completion, the Contractor shall correct it promptly after receipt of written notice from CMHA to do so, unless CMHA has previously acknowledged and accepted the Defective Work in writing.
- B. CMHA may send a copy of the written notice to the Contractor's Surety, but are not obligated to do so.

**5.22.4. Emergency Correction of Defective Work**

- A. Notwithstanding any other provision of the Contract, if in CMHA's opinion the Defective Work presents a threat of imminent harm or danger to people, property, or the environment, CMHA may order the Contractor to immediately correct Defective Work or CMHA may correct the Defective Work, at Contractor's expense, itself without any prior notice to the Contractor or Contractor's Surety.

**5.22.5. Responsibility for Costs of Correction**

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, associated with the correction of Defective Work and the recovery of schedule deficiencies.
- B. Those costs and damages may include, but are not limited to:
  - i. The related fees and charges of contractors, engineers, architects, attorneys, and other professionals; and
  - ii. The cost of correcting or replacing adjacent work.
- C. CMHA may deduct those costs and damages from payments then or thereafter due the Contractor.
  - i. If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to CMHA.

## **6. ARTICLE VI SUBCONTRACTORS**

### **6.1. Evaluation and Approval**

- 6.1.1. When submitting its Bid, the Contractor shall submit a Subcontractor and Material Supplier Declaration form through which the Contractor identifies its Subcontractor.
  - A. Provide list of subcontractors and material supplier and equipment with bid.
- 6.1.2. Within ten (10) calendar days after the Notice to Proceed, the Contractor shall submit to CMHA, an **updated** Subcontractor and Material Supplier Declaration form.
- 6.1.3. If CMHA rejects any proposed Subcontractor, the Contractor shall propose a replacement Subcontractor with no adjustment of the Contract Sum.
  - A. The proposed replacement will also be evaluated by CMHA.
- 6.1.4. The Contractor's failure to timely submit the information regarding a proposed Subcontractor may result in withholding payment to Contractor.

### **6.2. Suspension/Debarment**

- 6.2.1. The Contractor shall not enter into any Subcontract with any Subcontractor who has been temporarily denied participation in a HUD program or who has been suspended or debarred from participating in contracting program by any agency of the United States Government or the State of Ohio.

### **6.3. Contractor's Responsibility**

- 6.3.1. The Contractor shall be as fully responsible for the acts or omissions of its Subcontractors and of persons either directly or indirectly employed by them as for the acts or omissions of persons directly employed by the Contractor, and is responsible for scheduling and coordinating the Work of the Subcontractors.
- 6.3.2. The Contractor is fully responsible for any delay, interference, disruption, or hindrance attributable to the Contractor's Subcontractors.
- 6.3.3. The Contractors shall require that each of its Subcontractors have a competent supervisor at the Site whenever the Subcontractor is performing Work.
- 6.3.4. The Contractor shall bind its Subcontractors to the terms and conditions of the Contract Documents, so far as applicable to the Work of the Subcontractor, and shall not agree to any provision, which seeks to bind CMHA with terms inconsistent with or at variance from the Contract Documents.
- 6.3.5. The Contractor will not be relieved of its full responsibility for Subcontractors and their performance of the Work by:
  - A. The participation of CMHA, HUD, or the A/E in the processes described under ARTICLE VI SUBCONTRACTORS or other related provisions of the Contract Documents; or
  - B. CMHA's rejection of a Subcontractor or failure to reject a Subcontractor.

### **6.4. Mandatory Contract Provisions/Forms**

- 6.4.1. The Contractor shall insert appropriate clauses in all Subcontracts to bind Subcontractors to the terms and conditions of this Contract insofar as they are applicable in the work of Subcontractors.
- 6.4.2. CMHA reserves the right to reassign accepted agreements
- 6.4.3. Nothing contained in this Contract shall create any contractual relationship between any Subcontractor and CMHA or between the Subcontractor and HUD.
- 6.4.4. The Contractor must include in the contract with its Subcontractors the applicable labor provisions and prevailing wages as was provided to the Contractor by CMHA.
- 6.4.5. No less than ten (10) calendar days before the Work is to be performed by a Subcontractor, or within a shorter period as mutually agreed by the Contractor and CMHA, the Contractor shall submit to CMHA a complete copy of the executed Subcontract between the Contractor and Subcontractor.

### **6.5. Replacement of Subcontractors**

- 6.5.1. The Contractor shall not replace any Subcontractor after execution of the Subcontract without prior written approval of CMHA.
- 6.5.2. The Contractor shall not add any subcontractors after the Contract Execution without updating the Material supplier and subcontractor form or prior to written approval of CMHA.

### **6.6. Contingent Assignment of Subcontract**

**6.6.1.** The Contractor hereby assigns its Agreement with each Subcontractor to CMHA provided that the assignment is effective only after termination of the Contract by CMHA and only for those agreements that CMHA accepts by notifying Contractor and applicable Subcontractor in writing.

**6.7. Prompt Payment of Subcontracts**

**6.7.1.** The Contractor shall make payments to the Subcontractor in accordance with Applicable Law, including ORC that include, without limitation, the requirements under 6.7 - Prompt Payment of Subcontracts.

**6.7.2.** If a Subcontractor requests payment in time to allow the Contractor to include the request in its Contractor Payment Application Request the Contractor, within ten (10) calendar days after receipt of payment from CMHA, shall pay to the:

- A.** Subcontractor, an amount equal to the percentage of completion of the Subcontractors contract allowed by CMHA for the amount of labor or work performed;
- B.** Material Supplier, an amount that is equal to all or a portion of the invoice for materials which represents the materials furnished by the material supplier

**6.7.3.** The Contractor may reduce the amount paid by any retainage provision contained in the Contract, invoice, or purchase order between the Contractor and Subcontractor and may withhold amounts that may be necessary to:

- A.** Resolve disputed liens or claims involving the Work or labor performed by the Subcontractor; or
- B.** Account for failure of the Subcontractor to perform its obligations under its agreement with the Contractor required under ORC

**6.7.4. Labor Payments**

**A.** Within ten (10) calendar days of receipt of payment from CMHA, the Contractor shall pay Subcontractor in the following manner:

- i.** Partial payments to the Subcontractor for labor performed under either a Unit Price or lump sum Subcontract shall be made at the rate of 92 percent of the amount invoiced through the Subcontractor's request for payment that shows the Work of the Subcontractor is 50% complete.
- ii.** After the Work of the Subcontractor is 50 percent complete, as evidenced by payments of at least 50 percent of the total amount due under the Subcontract, no additional funds shall be retained from payments for labor.

**6.7.5. Material Payment**

**A.** Required by ORC for payment to Contractor by CMHA

- i.** The Contractor shall pay the Subcontractor at the rate of 95% of the invoice cost, not to exceed the scheduled value in a unit price or lump sum Subcontract, for materials delivered to the Site, or other offsite storage location approved by CMHA, provided the Subcontractor provides the information required with its request for payment.
- ii.** The Contractor shall pay the Subcontractor at the rate of 100% of the scheduled value for materials incorporated into the Project.

**6.7.6.** If Contractor fails to comply with the payment provisions set forth, the Contractor shall pay to the applicable Subcontractor, in addition to any payment due, interest in the amount of 18 percent per annum of the payment due, beginning the eleventh day following the receipt of payment from CMHA and ending on the date of full payment of the payment due plus interest.

**6.7.7.** If CMHA receives a Claim Affidavit from a Subcontractor, Subcontractor shall proceed in accordance with Applicable Law, including Ohio Revised Code.

**6.7.8.** Laborers, Subcontractors, and Material Suppliers may secure payment rights in accordance with Applicable Law, including Ohio Revised Code.

**6.8. Subcontracting with Small and Minority Firms, Women's Business Enterprise, and Labor Surplus Area Firms**

**6.8.1.** The Contractor shall take the following steps to ensure that, whenever possible, Subcontracts are awarded to small business firms, minority firms, women's business enterprises, and labor surplus area firms:

- A.** Placing qualified small and minority businesses and women's business enterprises on solicitations lists;
- B.** Ensuring that small and minority businesses and women's business enterprises are solicited whenever they are potential resources

- C. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises;
- 6.8.2.** Establishing delivery schedule, where the requirements of the Contract permit, which encourages participation by small and minority businesses and women's business enterprises; and
- 6.8.3.** Using the services and assistance of the U.S. Small Business Administration, the Minority Business Development Agency of the U.S. Department of Commerce, and State and local governmental small business agencies

## 7. ARTICLE VII PAYMENTS

### 7.1. CMHA Obligation

7.1.1. CMHA shall pay the Contractor the price as provided in the Contract.

### 7.2. Forms

7.2.1. Unless expressly authorized to the contrary, Contractor must use appropriate CMHA forms.

### 7.3. Step One – Pencil Application

7.3.1. The purpose of a pencil application is assisting the Contractor in identifying any potential error or omission in the pay application.

A. If submitted timely (as set forth below) CMHA will review and help identify any potential issues. However, the CMHA Construction Administrator's approval or suggestion does not guarantee approval of the payment application by the CMHA.

7.3.2. The Contractor shall initially submit a Pencil Application by no later than the 15<sup>th</sup> of each month.

A. The CMHA Construction Administrator will review the Pencil Application, and make any suggested corrections and return to the Contractor in approximately two (2) business days.

7.3.3. The Contractor shall then submit the final payment application to the CMHA Construction Administrator by the 23<sup>rd</sup> of each month.

7.3.4. Failure to submit a pencil application may result in a significant delay in payment.

### 7.4. Progress Payments

7.4.1. CMHA shall make progress payments approximately every forty-five (45) calendar days as the work proceeds on estimates of Work accomplished which meets the standards of quality established under the Contract, as approved by CMHA.

A. Subject to CMHA's written determination and approval more frequent payments may be made to contractors which are qualified as small businesses.

7.4.2. Before the first progress payment under this contract, the Contractor shall furnish, in such detail as requested by CMHA, a breakdown of the total contract price showing the amount included therein for each principal category of the work, which shall substantiate the payment amount requested in order to provide a basis for determining progress payments.

A. The breakdown shall be approved by CMHA and must be acceptable to HUD.

B. If the contract covers more than one Project, the Contractor shall furnish a separate breakdown for each.

C. The values and quantities employed in making up this breakdown are for determining the amount of progress payments and shall not be construed as a basis for additions to or deductions from the Contract Sum.

D. The Contractor shall prorate its overhead and profit over the construction period of the Contract.

7.4.3. The Contractor shall submit, on forms provided by CMHA, periodic estimates showing the value of the work performed during each period based upon the approved breakdown of the Contract Sum.

A. Such estimates shall be submitted not later than nine (9) calendar days in advance of the date set for payment and are subject to correction and revision as required.

B. The estimates must be approved by the CMHA prior to payment.

C. If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.

D. Each payment application should include affidavits for the Contractor, Sub Contractors and Material Suppliers. Lien waivers should be submitted as proof of payment for the prior payment application affidavits.

7.4.4. Along with each request for progress payments and the required estimates, the Contractor shall furnish the following certification, or payment shall not be made:

A. I hereby certify, to the best of my knowledge and belief, that:

- i. The amounts requested are only for performance in accordance with the specifications, terms,
- ii. Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements; and



- iii. This request for progress payments does not include any amounts which the prime Contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract.

#### **7.5. Allowances**

- 7.5.1. The Contract Sum includes the Allowances (if any) identified in the Contract.
- 7.5.2. All allowances include the costs to the Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes.

#### **7.6. Unit Prices**

- 7.6.1. Where the Contract provides that all or a part of the Work is to be Unit Price Work, initially that Contract Sum will include for all Unit Price Work:
  - A. An amount equal to the sum of the established Unit Prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Contract.
  - B. The Contractor's fee on that Unit Price Work.
- 7.6.2. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Sum.
  - A. CMHA will determine the actual quantities and classifications of Unit Price Work performed by the Contractor.
- 7.6.3. Before final payment, an appropriate Change Order will be issued to reconcile the Contract Sum so that it reflects actual amount due to the Contractor on account of Unit Price Work actually performed.

#### **7.7. Schedule of Values**

- 7.7.1. Within seven (7) calendar days after issuance of Letter of Intent or other period as mutually agreed by the Contractor and CMHA, the Contractor shall submit to CMHA a Schedule of Values on a form provided for by CMHA, with separate amounts shown for labor and materials for each branch of Work.
  - A. The Contractor shall clearly indicate on the Schedule of Values, but is not necessarily limited to, the cost of payment and performance bond(s), permit costs, the amount(s) allocated, including separate items for the Contractor's Fee (Overhead and Profit), and the amount(s) of labor and materials, as appropriate.
- 7.7.2. The grand total shown on the Schedule of Values shall equal the total Contract Sum.
- 7.7.3. CMHA may use the approved Schedule of Values to determine cost or credit to CMHA resulting from any change in the Work.
  - A. The first items shall be a breakdown of the General Conditions Cost.
  - B. The amounts for labor and materials shall accurately reflect the cost for each item.
    - i. The Contractor shall clearly indicate on the Schedule of Values, the amount(s) allocated, including separate items for Contractor's Fee (overhead and profit), for each Section 3 certified Business used in the performance of the Work.
    - ii. Contractor's Fee shall be included in the totals for labor and materials.
  - C. If the material allocation exceeds 55 percent of the Contract Sum, the Contractor shall provide, upon request, sufficient information to support the higher percentage.
  - D. Subcontract Work shall show amounts for labor and materials.
    - i. Fringe benefits shall be shown as a part of labor costs.
  - E. When more than one major structure is included in the Work, the Contractor shall subdivide the Schedule of Values accordingly, with cost details for each structure shown separately.
  - F. The line items shall be coordinated with line items in the Construction Progress Schedule, which may require division of items of Work by area of the Project by floor, phase, or other appropriate area.
  - G. Mechanical and electrical Work shall be included in separate line items for all major pieces of equipment, and group smaller equipment items by type.
  - H. Line items shall be included for each Allowance, Punch List Work, Project Record Document Submittals, delivery of attic stock, and specified demonstrations and training.
- 7.7.4. CMHA may return the Schedule of Values to the Contractor for re-submittal if it does not meet the requirements or contains insufficient items or details of the Work, or approve the Schedule of Values if CMHA determines that it conforms to section 7.7
- 7.7.5. No payment shall be made until the CMHA has approved the Contractor's Schedule of Values.

**7.8. Labor Payments/Retainage**

**7.8.1.** Partial payments to the Contractor for labor performed under either a Unit Price or lump sum Contract shall be made at the rate of 90 percent of the amount invoiced through the Contractor Payment Request.

**7.9. Material Payments/Retainage**

**7.9.1.** CMHA shall pay the Contractor at the rate of 100 percent of the scheduled value for materials incorporated into the Project.

**7.9.2.** CMHA shall pay the Contractor at the rate of 90 percent of the invoice cost, not to exceed the scheduled value in a Unit Price or lump sum Contract, for materials delivered to the Site, or other off-Site storage location approved by CMHA provided the Contractor provides the following information with the Contractor Payment Request:

- A.** A list of the fabricated materials consigned to the Project, giving the place of storage, together with copies of invoices, in order to verify quantity and cost; and
- B.** A certification of materials stored off-site, prepared by the Contractor and signed by CMHA to evidence that the materials are in conformity with the Specifications and have been tagged with the Project name and number for delivery to the Project.

**7.9.3.** CMHA shall pay the balance of the scheduled value when the materials are incorporated into and become a part of the Project.

**7.9.4.** When payment is allowed for materials delivered to the Site or other approved off-site storage location but not yet incorporated into the Project, the materials are the property of CMHA.

**7.9.5.** CMHA may, at its sole discretion, retain any material not ultimately incorporated into the Project or return it to the Contractor for credit of an amount proportionate to the value of the extra materials.

**7.9.6. Release of Retainage**

- A.** When the Contractor has achieved Substantial Completion of all Work, and there is no other reason to retain funds; upon request of the Contractor, the funds retained in connection with that Work shall be released and paid to the Contractor, withholding only that amount necessary to assure faithful completion in the sole discretion of CMHA, including but not limited to compliance with CLOSEOUT.

**7.10. Payments Withheld**

**7.10.1.** CMHA may withhold funds from or may assess Liquidated Damages against a Contractor Payment Request.

**7.10.2.** CMHA may decline to approve any Contractor Payment Request or part thereof, or nullify any previous Contractor Payment Request, in whole or in part, to the extent necessary in CMHA's sole opinion to protect CMHA from loss because of:

- A.** Defective Work not remedied;
- B.** Overpayment of any schedule of values line item without prior approval of related change order by Contracting Officer;
- C.** Overpayment due to calculation error;
- D.** Damage caused by the Contractor;
- E.** Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- F.** Reasonable evidence that the Work will not be completed within the Contract Times, and that the unpaid balance would not be adequate to cover damages under the Contract Documents for the anticipated delay;
- G.** Failure to comply with Applicable Law including, but not limited to, the requirements of ORC.

**7.11. Payment Request**

**7.11.1.** The Contractor and each of its Subcontractors, regardless of tier, shall execute a Payment Release Affidavit to certify that the Contractor and each of its Subcontractors, regardless of tier, have complied with all applicable requirements of ORC, and to certify that all of its Subcontractors have been paid in full for all Work performed or materials furnished under the Contract.

**7.11.2.** CMHA shall pay Contractor in approximately forty-five (45) calendar days from the date of acceptance of the Payment Request.

**7.11.3.** The Contractor, as a condition precedent to final payment, shall complete all requirements of the Contract Documents.

**7.11.4.** Acceptance of final payment by the Contractor or a Subcontractor constitutes the payee's waiver of all claims against CMHA except those previously made in writing and identified by that payee as unsettled at the time of the final Contractor Payment Request.

## **8. ARTICLE VIII CONTRACT MODIFICATIONS**

### **8.1. Changes in the Work**

- 8.1.1.** Except as provided, no order, statement or conduct of CMHA shall be treated as a change or entitle the Contractor to an equitable adjustment.
- 8.1.2.** Only CMHA's Contracting Officer has authority to modify any term or condition of this Contract.
  - A.** Any Contract modification shall be authorized in writing.
- 8.1.3.** The Contracting Officer may modify the contract unilaterally:
  - A.** Pursuant to a specific authorization stated in a Contract clause; or
  - B.** For administrative matters which do not change the rights or responsibilities of the parties.
- 8.1.4.** All other Contract Modifications shall be in the form of supplemental agreements signed by the Contractor and CMHA.
  - A.** If notice of any change affecting the Contract is required by the provision of any Bond, notice is the Contractor's responsibility.
- 8.1.5.** Except as expressly stated herein, the Contractor's failure to obtain prior written authorization from CMHA for a change in the Work constitutes a waiver by the Contractor of an adjustment to the Contract Sum or Contract Time or both.
- 8.1.6.** The Contractor shall perform all changes in the Work under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly with the change unless otherwise provided in the Change Order or order for a minor change in the Work.
- 8.1.7. HUD Approval**
  - A.** When a proposed modification requires the approval of HUD prior to its issuance; such modification shall not be effective until the required approval is received by CMHA.

### **8.2. Change Order**

- 8.2.1.** CMHA may order changes in the Work without invalidating the Contract and such change in Work may be accomplished, by Change Order or an order for a minor change in the Work.
- 8.2.2.** CMHA may, at any time, without notice to the sureties, by written order designated or indicated to be a change order, make changes in the Work within the general scope of the Contract including, but not limited to, changes:
  - A.** In the specifications (including drawings and designs);
  - B.** In the method or manner of performance of the Work;
  - C.** CMHA-furnished facilities, equipment, materials, services, or site; or
  - D.** Directing the acceleration of the Work.
- 8.2.3.** If any change causes an increase or decrease in the Contractor's cost of, or the time required for the performance of any part of the Work under this contract, whether or not changed by any such order, CMHA shall make an equitable adjustment and modify the Contract in writing.
  - A.** However, except for an adjustment based on defective specifications, no proposal for any change shall be allowed for any costs incurred more than twenty (20) calendar days before the Contractor gives written notice as required.
  - B.** In the case of defective specifications for which CMHA is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specification.
- 8.2.4.** The Contractor must assert its right to an adjustment within thirty (30) calendar days after:
  - A.** Receipt of a written change order, or
  - B.** The furnishing of a written notice by submitting a written statement describing the general nature and the amount of the proposal.
- 8.2.5.** If the facts justify it, CMHA may, in its sole discretion, extend the period for submission.

### **8.3. Change Order Directive**

- 8.3.1.** A Change Order Directive is a written order prepared by CMHA directing a change in the Work and may, if necessary, state a proposed basis for adjustment, if any, of Contract Sum or Contract Time, or both.
- 8.3.2.** A Change Directive shall be used to direct a change in the Work in the absence of a total agreement on the terms of a Change Order and shall only be used in the absence of total agreement on the terms of a Change Order concerning the associated change of the Work.

**8.3.3.** Upon receipt of a Change Directive, the Contractor shall promptly proceed with the change in the Work involved.

**8.3.4.** Within fourteen (14) calendar days after receiving the Change Directive, the Contractor shall respond with a Change Order Proposal for adjustment of the Contract Sum or Contract Time or both.

**8.3.5.** If the Contractor does not respond to the Change Directive as required above, CMHA shall determine the adjustments, if any, of the Contract Sum and Contract Times.

**A.** If the Contractor does not agree with CMHA's determination, the Contractor shall initiate a claim within ten (10) calendar days of the date on which CMHA issues the determination, and the Contractor's failure to do so shall constitute an irrevocable waiver the Claim.

**8.3.6.** If CMHA and the Contractor agree on the adjustment of the Contract Sum and/or Contract Time associated with the Change Order Directive, CMHA shall prepare an appropriate Change Order.

#### **8.4. Change Order Procedure**

**8.4.1.** Any Change Order Request must be in writing and submitted by the Contractor to CMHA in accordance with the Notice Provision.

**8.4.2.** The Contractor's cost of preparing and providing Proposals is included in the Contract Sum.

**8.4.3.** If CMHA Agrees with Change Order Proposal:

**A.** CMHA shall prepare each Change Order, attach the supporting documentation, and issue the Change Order to the Contractor for signature.

**B.** Within three (3) business days after issuance of Change Order to Contractor, Contractor must sign the Change Order and resubmit to CMHA.

**C.** Change Order is not approved until CMHA's Contracting Officer signs the Change Order.

**8.4.4.** If CMHA disagrees with Change Order Proposal or Contracting Officer doesn't Approve Change Order:

**A.** CMHA will notify Contractor in writing with reasons; and

**B.** Contractor has fourteen (14) calendar days to modify the Change Order Request or invoke ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE.

**8.4.5.** Failure to reach an agreement on any proposal shall be a dispute under ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE herein.

**A.** Nothing in Change Order Procedure, however, shall excuse the Contractor from proceeding with the contract change pursuant to an issued Change Directive.

#### **8.5. Change Order Proposal**

**8.5.1.** The Contractor's written proposal for equitable adjustment shall be submitted in the form of a lump sum proposal supported with an itemized breakdown of all increases and decreases in the contract in at least the following details:

**A.** Direct Costs:

**i.** Materials (list individual items, the quantity and unit cost of each, and the aggregate cost)

**ii.** Transportation and delivery costs associated with materials

**iii.** Labor breakdowns by hours or unit costs (identified with specific Work to be performed)

**iv.** Construction equipment exclusively necessary for the change

**v.** Costs of preparation and/ or revision to shop drawings resulting from the change

**vi.** Worker's Compensation and Public Liability Insurance

**vii.** Employment taxes under FICA and FUTA

**viii.** Bond Costs

**B.** Indirect Costs:

**i.** Indirect costs may include overhead, general and administrative expenses, and fringe benefits not normally treated as direct costs.

**C.** Profit:

**i.** The amount of profit shall be negotiated and may vary according to the nature, extent, and complexity of the work required by the change.

**ii.** The allow-ability of the direct and indirect costs shall be determined in accordance with the Contract Cost Principles and Procedures for Commercial Firms, in effect on the date of this Contract.

**iii.** The Contractor shall not be allowed a profit on the profit received by any subcontractor.

- iv. Equitable adjustments for deleted work shall include a credit for profit and may include a credit for indirect costs.
- v. On proposals covering both increases and decreases in the amount of the contract, the application of indirect costs and profit shall be on the net-change in direct costs for the Contractor or subcontractor performing the Work.

**8.5.2.** The Contractor shall include in the proposal its request for time extension (if any), and shall include sufficient information and dates to demonstrate whether and to what extent the change will delay the completion of the Contract in its entirety.

**8.5.3.** CMHA shall act on proposals within thirty (30) calendar days after their receipt, or notify the Contractor of the date such action will be taken.

**8.5.4.** By signing a Change Order, the Contractor irrevocably certifies that the elements of a Change Order described herein are completely satisfied, and waives all rights, if any, to seek further adjustment of the Contract Sum or Contract Times, or both, at a later date with respect to the associated change in the Work, including without limitation on account of the “cumulative impact” of the associated change in the Work in combination with in one or more of the other changes in the Work.

**8.5.5.** No Proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this Contract.

Except in an emergency endangering life or property, no change shall be made by the Contractor without a prior written authorization from CMHA’s Contracting Officer. When the Change Order is signed by the Contractor and CMHA’s Contracting Officer, the fully executed Change Order modifies the Contract Documents and authorizes and directs the Contractor to proceed, and the Contractor shall promptly proceed with the associated change in the Work.

#### **8.6. Differing Site Conditions**

**8.6.1.** The Contractor shall promptly, and before the conditions are disturbed, give a written notice to CMHA of:

- A. Subsurface or latent physical conditions at the site which differ from those indicated in this contract; or
- B. Unknown physical conditions at the site(s), of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the Contract.

i. Written notice of the condition shall be given immediately to CMHA.

C. The Contractor’s failure to give notice of the Differing Site Condition as required shall constitute an irrevocable waiver of any associated claim.

**8.6.2.** CMHA shall investigate the site conditions promptly after receiving the notice.

- A. Work shall not proceed at the affected site, except at the Contractor’s risk, until the Contracting Officer has provided written instructions to the Contractor.
- B. If the conditions do materially so differ and cause an increase or decrease in Contractor’s cost of, or the time required for, performing any part of the Work under this Contract, whether or not changed as a result of the conditions, the Contractor shall file a claim in writing to CMHA within ten (10) calendar days after receipt of such instructions and, in any event, before proceeding with the work.
- C. An equitable adjustment in the Contract price, the delivery schedule, or both shall be made under this.

**8.6.3.** No request by Contractor for an equitable adjustment to the Contract under Differing Site Conditions shall be allowed, unless the Contractor has given the written notice required; provided that the time prescribed for giving written notice may be extended by CMHA.

**8.6.4.** If CMHA determines that the Contractor has not encountered a Differing Site Condition and the Contractor does not agree with that determination, the Contractor must initiate a Claim within ten (10) calendar days of the date that CMHA issues its determination.

#### **8.7. Minor Changes in the Work**

**8.7.1.** CMHA may order minor changes in the Work not involving adjustment of the Contract Sum or extension of the Contract Times and not inconsistent with the intent of the Contract Documents.

- A. Those changes shall be effected by written order issued to the Contractor.

- 8.7.2. The Contractor shall promptly carry out each order for a minor change in the Work if the Contractor agrees that the order does not involve adjustment of the Contract Sum and Contract Times.
- 8.7.3. If the Contractor reasonably believes that it would be entitled to an adjustment of the Contract Sum or Contract Times, or both, on account of an order for a minor change in the Work, the Contractor, within three (3) business days after receiving the order, shall give CMHA written notice of the Contractor's position, and not proceed with the subject Work without first receiving a Change Order related to it.
- 8.7.4. The Contractor waives its right to an adjustment of the Contract Sum or Contract Times on account of an order for a minor change in the Work by:
  - A. Starting the Work that is the subject of the order for a minor change in the Work; or
  - B. Failing to give the notice described within three (3) business days after receiving the order for a minor change in the Work.

#### **8.8. Change Order Cost or Credit Determination**

##### **8.8.1. General**

- A. The maximum cost or credit resulting from a change in the Work shall be determined as described below.
  - i. Proposals shall include the information required.
  - ii. A Unit Price Proposal shall only be valid when incorporated into the Contract by Change Order.
  - iii. The maximum cost or credit includes all compensation for impact costs.
    - (a) Additional costs for impacts shall not be allowed.
- B. The Contractor shall not assign any portion of the Work to another Person whereby the Contractor would benefit directly or indirectly from the double application of charges for overhead or profit.
- C. CMHA may require notarized invoices for material costs and may audit the records of the Contractor and Subcontractors.
- D. For each change in the Work, the Contractor shall furnish a detailed Proposal itemized on the Proposal Worksheet Summary Form published by CMHA through which the Contractor shall document the related changes in the Contract Sum.
  - i. Any Subcontractor pricing shall also be itemized on the Proposal Worksheet Summary Form.
- E. Section 8.8.2 Pricing Criteria establishes the exclusive and maximum amount that CMHA shall pay for any Change Order, including, but not limited to, all amounts for interference with, delay, hindrance, disruption, or impact of the Work
  - i. These Pricing Criteria also govern the value of deduct Change Orders and the Contractor's entitlement to additional compensation or damages through the Claims and dispute resolution processes on account of changes in the Work.
  - ii. In order to expedite the review and approval process, Proposals shall be prepared in the categories and order listed in - Pricing Criteria.

##### **8.8.2. Pricing Criteria**

###### **A. Contractor Personnel Costs**

- i. The Contractor's on-Site management (including supervision and administrative personnel) are not subject to State or Federal Prevailing Wage Rates.
- ii. These costs will be calculated on an hourly basis according to the rates acceptable to CMHA.
- iii. In no event will the Contractor be entitled to an increase in the Contract Sum on account of Contractor Personnel Costs unless the Contractor actually incurs additional Contractor Personnel Costs solely on account of the associated change in the Work.

###### **B. Labor**

- i. Field labor directly involved in the Work based upon the actual rate of pay to the worker.
- ii. If the Project is subject to payment of prevailing wage rates, field labor shall be paid according to the applicable classification of labor as established in the applicable prevailing wage determination.
- iii. In no event will the Contractor be entitled to an increase in the Contract Sum on account of labor costs unless the Contractor actually incurs additional labor costs solely on account of the associated change in the Work.
- iv. Under no conditions will the increase exceed those additional labor costs the Contractor actually incurs.

- v. The cost for supervision above the level of working forepersons (such as general forepersons, superintendent, project manager, etc.) is included in the adjustment Contractor Personnel Costs.
- C. Fringes**
- i. Fringe benefit credit for labor is only allowable for prevailing wage fringe benefits including, but not limited to, Health and Welfare, vacation, apprenticeship training, and certain types of pension plans.
  - ii. Each fringe benefit for which credit is requested shall be calculated on an hourly basis and listed as a separate line item.
  - iii. The Contractor shall submit documentation supporting the calculation of the amounts for each fringe benefit for each worker classification, including labor provided by Subcontractors.
- D. Allowable Payroll Expenses**
- i. Allowable payroll expenses for labor including payroll taxes as well as other benefits that are required by Applicable Law, shall each be a separate line item.
- E. Equipment Rentals**
- i. All charges for certain non-owned heavy or specialized equipment at up to 100 percent of the documented rental cost
  - ii. No rental charges shall be allowed for hand tools, minor equipment, simple scaffolds, etc. Downtime due to repairs, maintenance and weather delays shall not be allowed.
  - iii. Contractor shall submit copies of actual paid invoices to substantiate rental costs.
- F. Owned Equipment**
- i. All charges for certain heavy or specialized equipment owned by the Contractor or Subcontractor performing the Work at up to 100 percent of the cost listed by the current edition of the Associated Equipment Distributors' *AED Green Book* heavy equipment rental rates.
  - ii. No recovery shall be allowed for hand tools, minor equipment, simple scaffolds, etc.
  - iii. The longest period of time that the equipment is to be required for the Work shall be the basis for the pricing.
  - iv. Downtime due to repairs, maintenance, and weather delays shall not be allowed.
- G. Trucking**
- i. A reasonable delivery charge or per-mile trucking charge for delivery of required materials or equipment
  - ii. Charges for use of a pick-up truck shall not be allowed.
- H. Materials**
- i. The actual cost (including all discounts, rebates or related credits) of all materials incorporated into the changed Work
  - ii. Documentation shall show costs, quantities, or Unit Prices of all items, as appropriate.
  - iii. The cost or credit for reusable materials shall be limited to 33 percent of the material cost for each use.
- I. Contractor's General Conditions Costs**
- i. The Contractor's General Conditions Costs to the extent attributable to an associated change in the Contract Time for achievement of Final Acceptance resulting from the change in Work
  - ii. In no event shall the Contract Sum adjustment per day of Contract Time adjustment exceed an amount equal to **(1)** the sum of the General Conditions Costs line items in the Contractor's Schedule of Values approved by CMHA, **(2)** divided by the total number of days of the original Contract Time for achievement of Final Acceptance.
  - iii. The Contractor shall:
    - (a)** Exclude the bond premium from the Schedule of Values for the purposes of the calculation; and
    - (b)** Include the actual adjustment of the Bond Premium attributable to an associated change in the Contract Sum.
  - iv. If the Contractor purchases Builder's Risk insurance for the Project, the Contract shall:
    - (a)** Exclude the Builder's Risk insurance premium from the Schedule of Values for the purposes of the calculation; and



- (b) Include the actual adjustment of the Builder's Risk insurance premium attributable to an associated change in the Contract Sum.

**J. Subcontractor Overhead and Profit**

- i. Adjustment of the Contract Sum on account of a change in Subcontractor-performed Work shall include the Subcontractor's aggregate overhead and profit allowance equal to 15 percent of the sum of the Subcontractor's costs that are associated with that changed Work.
- ii. The allowance applies to each Subcontractor tier.
- iii. The allowance covers:
  - (a) The costs required to schedule and coordinate the Work
  - (b) Telephone
  - (c) Telephone charges
  - (d) Facsimile
  - (e) Telegrams
  - (f) Postage
  - (g) Photos
  - (h) Photocopying
  - (i) Hand tools
  - (j) Simple scaffolds (one level high)
  - (k) Tool breakage
  - (l) Tool repairs
  - (m) Tool replacement
  - (n) Tool blades
  - (o) Tool bits
  - (p) Home office estimating and expediting
  - (q) Home office clerical and accounting support
  - (r) Home office labor (management, supervision, engineering)
  - (s) All other home office expense, legal services, travel, and parking expenses
- iv. An exception is allowed for shop or engineering labor, which shall not be subject to Prevailing Wage rates for steel fabricators, sheet metal fabricators, and sprinkler system fabricators performing work off-site.
  - (a) Recovery for these matters shall be allowed on an hourly basis.
- v. An exception is allowed for field supervision labor, for those portions of the Change Order Work that will be performed, or was performed, at times when the superintendent is not required to be on site, including but not limited to overtime hours due to acceleration and\ extensions of the Contract Times.
  - (a) Recovery for this matter will be allowed on an hourly basis.

**K. Contractor's Fee**

- i. Adjustment of the Contract Sum on account of a change in the Work shall include an allowance for the Contractor's Fee equal to 10 percent of the sum of the costs that are associated with that changed Work.

**L. Miscellaneous**

- i. Adjustment of the Contract Sum on account of a change in Work may include the following costs with no allowance for Contractor's Fee or Subcontractor overhead and profit.
- ii. The premium portion only for approved overtime (labor and fringes)
- iii. The straight time portion is included.

**8.8.3. Costs that shall not be reimbursed for Change Order Work include the following**

- A. Voluntary employee deductions including, but not limited to, deductions for charitable donations or U.S. savings bonds
- B. Employee profit sharing

**8.9. Time Extension**

- 8.9.1.** Every adjustment of the Contract Times associated with any change in the Work shall be determined as provided herein, which establishes the Contractor's maximum entitlement for any change in the Work, including without limitation all adjustments for interference, delay, hindrance, or disruption of the Work.

- 8.9.2.** This also governs time adjustments for deduct Change Orders and the Contractor's entitlement to additional time through the claims and dispute resolution processes on account of changes in the Work.
- 8.9.3.** The Contractor shall substantiate all changes in the Contract Times with:
- A.** A written description of the nature of the interference, disruption, hindrance or delay;
  - B.** Identification of Persons and events responsible for the interference, disruption, hindrance or delay;
  - C.** Date, or anticipated date, of commencement of the interference, disruption, hindrance or delay;
  - D.** Identification of activities by schedule activity number and name on the Construction Progress Schedule, which may be affected by the interference, disruption, hindrance or delay, or new activities created by the interference, disruption, hindrance or delay and the relationship with existing activities;
  - E.** Anticipated duration of the interference, disruption, hindrance or delay and of any remobilization period;
  - F.** Specific number of days of extension requested and specific number of days for remobilization requested;
  - G.** Recommended action to avoid or minimize any future interference, disruption, hindrance or delay; and
  - H.** A detailed written proposal for an increase in the Contract Sum which would fully compensate the Contractor for all costs of acceleration of the Work needed to completely overcome the associated delay, if any.
- 8.9.4.** A Change Order may authorize extension of the Contract Time for specific elements, while maintaining milestone dates for unaffected elements.
- A.** Such a Change Order may also authorize an appropriate adjustment to Liquidated Damages.
- 8.9.5. Critical Path**
- A.** Time extensions shall depend upon the extent to which the Work on the critical path of the Construction Progress Schedule is affected.
- 8.9.6.** A Change Order granting a time extension may provide that the Contract Times shall be extended for only elements so interfered with, disrupted, hindered, or delayed and related remobilization and that shall not be altered and may further provide for adjustment of Liquidated Damages.

## **9. ARTICLE IX CONSTRUCTION CLOSEOUT**

### **9.1. Final Cleaning**

- 9.1.1.** Before requesting the Substantial Completion inspection of the Work, the Contractor shall clean the Site, remove waste materials and rubbish attributable to the Project, and restore the property to an acceptable condition so that upon Substantial Completion, the premises are ready for occupancy by CMHA.
- 9.1.2.** If the Contractor performs any Work after final cleaning, the Contractor shall clean the affected area as provided above so that upon Substantial Completion, the premises are ready for occupancy by CMHA.
- 9.1.3.** Final cleaning shall be done to the reasonable satisfaction of CMHA.

### **9.2. Inspection and Construction of the Work**

- 9.2.1.** The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the Contract conforms to contract requirements.
  - A.** All work is subject to CMHA inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the Contract.
- 9.2.2.** CMHA inspections and tests are for the sole benefit of CMHA and do not:
  - A.** Relieve the Contractor of responsibility for providing adequate quality control measures;
  - B.** Relieve the Contractor of responsibility for loss or damage of the material before acceptance;
  - C.** Constitute or imply acceptance; or
  - D.** Affect the continuing rights of CMHA after acceptance of the completed work.
- 9.2.3.** The presence or absence of the CMHA inspector does not relieve the Contractor from any Contract requirement, nor is the inspector authorized to change any term or condition of the specifications without the Contracting Officer's written authorization.
  - A.** All instructions and approvals with respect to the work shall be given to the Contractor by CMHA.
- 9.2.4.** The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by CMHA.
  - A.** CMHA may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes re-inspection or retest necessary.
  - B.** CMHA shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size and performance tests shall be performed as described in the Contract.

### **9.3. Routine Inspections**

- 9.3.1.** CMHA may conduct routine inspections of the construction Site on a daily basis.
- 9.3.2.** The Contractor shall, without charge, replace or correct Work found by CMHA not to conform to contract requirements, unless Contracting Officer decides that it is in its interest to accept the Work with an appropriate adjustment in Contract Sum.
  - A.** The Contractor shall promptly segregate and remove rejected material from the premises.
- 9.3.3.** If the Contractor does not promptly replace or correct rejected Work, CMHA may:
  - A.** By Contract or otherwise, replace or correct the Work and charge the cost to the Contractor; or
  - B.** Terminate for default the Contractor's right to proceed.
- 9.3.4.** If any work requiring inspection is covered up without approval of CMHA, it must, if requested by the Contracting Officer, be uncovered at the expense of the Contractor.
  - A.** If at any time before final acceptance of the entire work, CMHA considers it necessary or advisable, to examine work already completed by removing or tearing it out, the Contractor, shall on request, promptly furnish all necessary facilities, labor, and material.
  - B.** If such Work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray all the expenses of the examination and of satisfactory reconstruction.
  - C.** If, however, such work is found to meet the requirements of the Contract, the Contracting Officer shall make an equitable adjustment to cover the cost of the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

### **9.4. Substantial Completion**

**9.4.1. Contractor's Punch List**

- A.** When the Contractor considers the Work, or a designated portion thereof, Substantially Complete the Contractor shall inspect the Work and prepare a list of Defective Work and incomplete or unacceptable Work ("Contractor's Punch List").
- B.** The Contractor shall list all items of Work not in compliance with the Contract Documents, including items the Contractor is requesting to be deferred.
  - i.** The Contractor shall proceed to correct all items listed on the Contractor's Punch List and certify that the incomplete items listed on the Contractor's Punch List are to its knowledge an accurate and complete list by signing the Contractor's Punch List.
  - ii.** The Contractor's failure to include an item on the Contractor's Punch List shall not alter the Contractor's responsibility to complete the Work in accordance with the Contract Documents.
  - iii.** The Contractor shall submit the signed Contractor's Punch List to CMHA together with a request for a Substantial Completion inspection of the Work.

**9.4.2. Substantial Completion Inspection**

- A.** The Contractor shall notify CMHA, in writing, as to the date when in its opinion all or a designated portion of the Work will be substantially completed and ready for inspection.
  - i.** If CMHA and/or the A/E determine that the state of preparedness is as represented, CMHA will promptly arrange for the inspection.
  - ii.** Unless otherwise specified in the Contract, CMHA shall accept, as soon as practicable after completion and inspection, all work required by the Contract or that portion of the Work that CMHA determines and designates can be accepted separately.
  - iii.** Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or CMHA's right under any warranty or guarantee.
- B.** Within three (3) business days after receipt of the request for the Substantial Completion inspection of the Work, CMHA shall notify the Contractor of acceptance or rejection of the request, stating reasons for any rejection.
  - i.** Within seven (7) calendar days after its acceptance of the Contractor's request, CMHA and/or the A/E shall conduct the Substantial Completion inspection to determine whether the Work, or designated portion, is in conformity with the Contract Documents and Substantially Complete.
  - ii.** If CMHA and/or the A/E determines that the Work is Substantially Complete, within three (3) business days after the Substantial Completion inspection, CMHA and/or the A/E shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion and include a list of Defective, incomplete, or unacceptable Work ("CMHA's Punch List").
  - iii.** CMHA's Punch List shall include:
    - (a)** The items on the Contractor's Punch List that are not yet completed or corrected as of the date of the Substantial Completion inspection; and
    - (b)** Comments from CMHA regarding the Punch List and other issues related to the Project.
  - iv.** CMHA shall submit the Certificate of Substantial Completion to the Contractor for their written acceptance.
    - (a)** Upon their acceptance and consent of the Contractor's Surety, and subject to CMHA's right to withhold payment, CMHA shall release retainage.
  - v.** CMHA and/or the A/E's failure to include an item on CMHA's Punch List shall not alter the Contractor's responsibility to complete the Work in accordance with the Contract Documents.
  - vi.** If CMHA subsequently determines that the Work is not Substantially Complete, CMHA may request compensation for related expenses.
    - (a)** CMHA may deduct the additional expenses from payments then or thereafter due the Contractor.

- (b) If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to CMHA. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, associated with the failure of the Contractor to timely and properly complete the Punch List items.

**9.4.3. Completion of Punch List Items**

- A. The Contractor shall complete all items on the CMHA's Punch List prior to date for Contract Completion.
- B. After completing all items on the CMHA's Punch List, the Contractor shall provide a written request for Final Inspection of the Work.
  - i. If Work on the Punch List cannot be timely completed, the Contractor shall submit a change order request MODIFICATIONS.
  - ii. Within three (3) business days after receipt of the request for the Final Inspection of the Work, CMHA and/or the A/E shall complete a Final Inspection of the Work for compliance with the Contract Documents.
  - iii. If multiple inspections of items on CMHA's Punch List are required due to the Contractor's failure to properly and timely complete them, the Contractor shall pay any additional costs incurred by the A/E and CMHA resulting from any attendant delay.
    - (a) CMHA may deduct those additional costs from payments then or thereafter due the Contractor.
    - (b) If payments then or thereafter due the Contractor are not sufficient to cover those amounts, the Contractor shall immediately pay the amount of the insufficiency to CMHA. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, related to multiple inspections by CMHA of items on the Punch List due to the Contractor's failure to properly and timely complete the Punch List.

**9.5. Demonstration and Training, Operating Appurtenances**

- 9.5.1. The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and final payment, shall perform demonstration and training of CMHA's maintenance personnel as specified in the Contract Documents.
- 9.5.2. The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and final payment, shall organize and submit operating appurtenances and loose items related to operation and maintenance of the completed Project to CMHA, including, but not limited to:
  - A. Keys to door and window hardware, panels, and other devices not directly provided to CMHA from the manufacturer;
  - B. Operating handles, levers, cranks, specialized wrenches or drivers, remote controls, and similar items; and
  - C. Extra materials (e.g., attic stock).

**9.6. Acceptance of Defective Work**

- 9.6.1. Defective Work may only be knowingly accept by CMHA in writing instead of CMHA requiring its removal or correction, in which case the Contract Sum must be equitably reduced to account for the reduction in benefit of the Work received by CMHA on account of the Defective Work.
  - A. CMHA may only accept Defective Work though a deduct Change Order that makes explicit reference to Acceptance of Defective Work
- 9.6.2. None of the following will constitute acceptance of Defective Work, a release of the Contractor's obligation to perform the Work in accordance with the Contract, or a waiver of any rights set forth in the Contract or otherwise provided by Applicable Law:
  - A. Observations or inspections by CMHA or the A/E;

- B. The making of any payment;
- C. Substantial Completion or the issuance of a Certificate of Substantial Completion;
- D. Partial Occupancy and CMHA's use or occupancy of the Work or any part of it;
- E. Contract Completion or the issuance of a partial or final Certificate of Contract Completion;
- F. Any review or approval of a submittal;
- G. Any inspection, test, or approval by other Persons; or
- H. Any correction of Defective Work by CMHA.

#### **9.7. Building Commissioning**

- 9.7.1. If the Project scope includes building commissioning, the Contractor shall participate in the Commissioning Process, as prescribed in the Contract Documents.
- 9.7.2. The Contractor shall permit the A/E, CMHA, or a third-party Commissioning Agent ("CxA") if applicable, access to commission performance based equipment, fixtures, and/or systems (e.g., HVAC, fire protection, smoke evacuation, fume hoods, emergency power, etc.), prior to Substantial Completion.
- 9.7.3. The A/E, CMHA, or CxA if applicable, shall promptly notify, in writing, the Contractor of any deficiency identified during the Commissioning Process.
- 9.7.4. To facilitate the Commissioning Process, the Contractor shall submit 4 sets of Operation and Maintenance manuals for dynamic and engineered systems to CMHA and CxA, if applicable, for approval. This submission shall occur within 30 days of obtaining approval of all related Contractor submittals required by the Contract Documents.

#### **9.8. Contract Completion**

##### **9.8.1. Partial Contract Completion**

- A. When items of Work cannot be completed until a subsequent date, CMHA shall prepare a partial Certificate of Contract Completion that shall include a detailed list of the deferred Work and the date(s) by which the Contractor will complete that Work.
- B. CMHA shall submit the partial Certificate of Contract Completion to Contractor for their written acceptance. Upon their acceptance of the partial Certificate of Contract Completion and consent of the Contractor's Surety, CMHA may release payment to the Contractor, as determined in the sole discretion of CMHA.

##### **9.8.2. Final Contract Completion**

- A. Contract Completion shall occur no later than 30 calendar days from the date of Substantial Completion.
- B. When all items on CMHA's Punch List have been completed to the satisfaction of CMHA, all requirements of the Contract Documents have been completed, and the provisions have been fulfilled, CMHA shall prepare and recommend execution of final Contract payment.
- C. The date that CMHA executes the final Certificate of Contract Completion or issues Contract payment, whichever is later, is the date of Contract Completion.
- D. Nothing in Contract Completion shall constitute a waiver of CMHA's ability to pursue damages as the result of any breach of the Contract by the Contractor or Liquidated Damages.

## **10. ARTICLE X SUSPENSION AND TERMINATION**

### **10.1. Suspension of the Work**

**10.1.1.** The Contracting Officer may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of CMHA.

**10.1.2.** If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted by an act of CMHA in the administration of this Contract, or by CMHA's failure to act within the time specified (or within a reasonable time if not specified) in this Contract, an adjustment shall be made for any increase in the cost of performance of the Contract (excluding profit) necessarily caused by such unreasonable suspension, delay, or interruption and the Contract modified in writing accordingly.

**A.** However, no adjustment shall be made for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor or for which any equitable adjustment is provided for or excluded under any other provision of this Contract.

**10.1.3.** A Claim shall not be allowed:

**A.** For any costs incurred more than twenty (20) calendar days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order); and

**B.** Unless the Claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but no later than the date of final payment under the Contract.

**10.1.4.** If CMHA suspends the Work under ARTICLE X SUSPENSION AND TERMINATION and the Contractor submits a proper Payment Request, subject to all other provisions of the Contract Documents, the Contractor shall be entitled to payment of compensation due under the Contract Documents for the Work performed before the suspension based upon the Schedule of Values.

**10.1.5.** CMHA, without prejudice to any other right or remedy it may have, may order the Contractor in writing to suspend, delay, or interrupt the performance of the Work in whole or in part for such period as CMHA may determine for any of the following reasons:

**A.** Defective Work;

**B.** The Contractor is causing undue risk of damage to any part of the Project or adjacent area;

**C.** The Contractor fails to furnish or perform the Work in such a way that the complete Work will conform to the requirements of the Contract Documents; or

**D.** Any other cause CMHA reasonably believes justifies suspension.

**i.** CMHA's exercise of its right to suspend the Work shall not entitle Contractor to any adjustment of the Contract Sum, Contract Time or both.

**10.1.6.** Upon receipt of the notice of suspension, the Contractor shall cease Work on the suspended activities and take all necessary or appropriate steps to limit disbursements and minimize respective costs.

**A.** The Contractor shall furnish a report to CMHA within five (5) business days of receiving the notice of suspension, describing the status of the Work, including, but not limited to, results accomplished, resulting conclusions, and other information as CMHA may require.

**10.1.7.** CMHA's right to stop the Work shall not give rise to any duty to exercise the right for the benefit of the Contractor or any other party, and CMHA's exercise or failure to exercise the right shall not prejudice any of CMHA's other rights including the right to suspend the Work in the future under the same or similar circumstances.

### **10.2. Termination for Convenience**

**10.2.1.** CMHA, through the Contracting Officer, may terminate this contract in whole, or in part, whenever the Contracting Officer determines that such termination is in the best interest of CMHA.

**A.** Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which the performance of the work under the contract is terminated, and the date upon which termination becomes effective.

- 10.2.2.** Upon delivery of the notice of termination for convenience, the Contractor shall immediately proceed with performance of the following duties in accordance with instructions from CMHA:
- A.** Cease operations as specified in the notice;
  - B.** Place no further orders and enter into no further subcontracts for materials, labor, services, or facilities, except as necessary to complete continued portions of the Project;
  - C.** Terminate all subcontracts and orders to the extent they are related to the Work terminated;
  - D.** Proceed with Work not terminated; and
  - E.** Take actions that may be necessary, or that CMHA may direct, for the protection and preservation of the terminated Work.
    - i.** Failure to do so may lead to Contractor's liability for actual damages as a result of Contractor's failure to protect the Work.
- 10.2.3.** If the performance of the work is terminated, either in whole or in part, CMHA shall be liable to the Contractor for reasonable and proper costs resulting from such termination upon the receipt by CMHA of a properly presented claim setting out in detail:
- A.** The total cost of the work performed to date of termination less the total amount of contract payments made to the Contractor;
  - B.** The cost of settling and paying claims under Subcontracts and material orders for work performed and materials and supplies delivered to the site, payment for which has not been made by CMHA to the Contractor or by the Contractor to the Subcontractor or supplier;
  - C.** The cost of preserving and protecting the work already performed until CMHA or assignee takes possession thereof or assumes responsibility therefore; and
  - D.** An amount constituting a reasonable profit on the value of the work performed by the Contractor.
- 10.2.4.** CMHA will act on the Contractor's claim within sixty (60) calendar days (unless CMHA deems in writing that additional time is needed for review) of receipt of the Contractor's claim.
- 10.2.5.** Any disputes are expressly made subject to the provisions of this Contract.



**10.2.6.** If CMHA terminates the Work the termination shall not affect the rights or remedies of CMHA against the Contractor then existing or which may thereafter accrue.

**10.2.7.** Notwithstanding, if CMHA terminates the Work but there exists an event of Contractor's default, the Contractor shall be entitled to receive only such amounts as it would be entitled to receive following the occurrence of an event of default as provided for below.

**10.3. Termination for Cause/Default**

**10.3.1.** If the Contractor materially breaches this Contract, including without limitation, the Contractor refuses or fails to prosecute the work, or any separable part thereof, with the diligence that will insure its completion within the time specified in this Contract, or any extension thereof, or fails to complete said work within this time, CMHA may, by written notice to the Contractor, terminate the right to proceed with the work (or separable part of the work) that has been delayed.

- A.** In this event, CMHA may take over the work and complete it, by contract or otherwise, and may take possession of and use any materials, equipment, and plant on the work site necessary for completing the work.
- B.** The Contractor and its sureties shall be liable for any damage to CMHA resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated.
  - i.** This liability includes any increased costs incurred by CMHA in completing the Work.
- C.** Other examples of material breaches of the Contract include but are not limited to:
  - i.** Refusal to remedy defective work;
  - ii.** Failure to supply enough properly skilled workers or proper materials;
  - iii.** Failure to provide revised Construction Progress Schedule or Recovery Plan;
  - iv.** Failure to properly make payment to Subcontractors or Consultants; or
  - v.** Disregarding laws, ordinances, or rules, regulations, or orders of a public authority with jurisdiction over the Project.

**10.3.2.** If CMHA intends to exercise its termination right, CMHA shall issue not less than five (5) business days written notice to the Contractor and the Contractor's Surety in accordance with ORC.

- A.** Notwithstanding any provision of the Contract to the contrary, the issuance of a 3-Day Notice is not a condition precedent to CMHA's exercise of its rights and CMHA's decision to not issue a 3-Day Notice will not prejudice CMHA's rights under this.

**10.3.3.** If the Contractor fails to satisfy the requirements set forth in the 5-Day Notice within fifteen (15) calendar days of receipt of the 5-Day Notice or as otherwise specified in the notice, CMHA may declare the Contractor in default, terminate the Contract, and employ upon the Work the additional force or supply materials or either as appropriate, and remove Defective Work.

**10.3.4.** If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the Parties will be the same as if the termination had been for convenience of CMHA.

**10.3.5.** If the Contract is terminated, the Contractor's Surety may perform the Contract.

- A.** If the Contractor's Surety does not commence performance of the Contract within ten (10) calendar days of the date of Contract termination, CMHA may complete the Work by means that CMHA deems appropriate.
  - i.** CMHA may take possession of and use all materials, facilities, and equipment at the Site or stored off-site, for which CMHA has paid.
- B.** If CMHA notifies the Contractor's surety that the Contractor is in default or terminates the Contract, the surety will promptly and in not less than twenty-one (21) calendar days investigate the claimed material default or termination.
  - i.** If CMHA gives a notice of default and then terminates the Contract, the surety shall complete its investigation within twenty-one (21) calendar days of the notice of default.
    - (a)** As part of such investigation, the surety shall visit the offices of the Contractor, A/E and CMHA to review the available project records.
  - ii.** If the surety proposes to take over the Work, the surety shall do so no later than the expiration of such 21-day period or ten (10) calendar days after the date CMHA terminates the Contract, whichever is later.

iii. If CMHA terminates the Work, and the surety proposes to provide a replacement contractor, the replacement contractor shall be fully capable of performing the Work in accordance with the Contract Documents, including meeting all the requirements of the Contract Documents.

(a) If the Contractor is terminated, the replacement contractor shall not be the Contractor.

iv. The surety will provide the Owner with the results of its investigation, including any written report or documents.

C. Termination for Cause/Default is in addition to CHMA's other rights under the Contract Documents and is not intended to create any rights of the surety, including but not limited to the right to take over the Contractor's obligations.

**10.3.6.** If the Contract is terminated for cause, the Contractor shall not be entitled to further payment.

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, arising out of or related the costs incurred by CMHA to finish the Work following termination of the Contractor for cause.

B. If the unpaid balance of the Contract Sum exceeds the costs of finishing the Work, including without limitation the fees and charges of engineers, architects, attorneys, and other professionals and court costs, and other damages incurred by CMHA and not expressly waived, the Contractor or Surety shall immediately pay the amount of insufficiency to CMHA.

C. This obligation for payment shall survive termination of the Contract.

**10.3.7.** If the Contractor's Surety performs the Work, the provisions of the Contract Documents govern the Surety's performance, with the Surety in place of Contractor in all provisions including, but not limited to, provisions for payment for the Work, and provisions of the right of CMHA to complete the Work.

**10.3.8.** If CMHA terminates the Contract, the termination shall not affect any rights or remedies of CMHA against the Contractor then existing or which may thereafter accrue.

A. CMHA's retention or payment of funds due to the Contractor shall not release the Contractor or the Contractor's Surety from liability for performance of the Work in accordance with the Contract Documents.

#### **10.4. Contractor Insolvency**

**10.4.1.** Bankruptcy of Contractor

A. If the Contractor files a voluntary petition in bankruptcy or has an involuntary petition in bankruptcy filed against it, the Contractor, the Contractor as the debtor-in-possession, or the trustee of the Contractor's bankruptcy estate shall notify CMHA in writing within five (5) days of such filing and file a motion to assume or reject the Contract within twenty (20) calendar days after the filing of the petition and shall diligently prosecute that motion to conclusion so as to obtain an order granting or denying that motion within forty-five (45) calendar days after the filing of the petition.

B. The failure of the Contractor to file and prosecute that motion Contractor shall constitute a material breach of the Contract by the Contractor as time is of the essence with respect to Contractor's performance of all terms of this Contract.

C. The Contractor agrees to the granting of relief from the automatic stay of the Bankruptcy Code, to permit CMHA to terminate the Contract for cause in such instance and issue and serve all notices necessary to terminate the Contract or arising out of termination of the Contract and to take any other action necessary to terminate the Contract.

**10.4.2.** Receivership or Assignment for the Benefit of Creditors

A. If the Contractor makes a general assignment for the benefit of creditors or if a receiver is appointed for all or a substantial part of Contractor's business or property, CMHA shall serve written notice to the Contractor and Contractor's Surety stating that any failure of the Contractor to provide adequate assurance of continued performance shall be considered a rejection of the Contract, which shall result in termination of the Contract for cause.

B. Termination of the Contract need not be evidenced by an order of any court.

## **11. ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE**

### **11.1. General**

- 11.1.1.** "Claim," as used in ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, additional time, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract.
- 11.1.2.** A Claim arising under the Contract, unlike a claim relating to the contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant.
- 11.1.3.** A voucher, invoice, application for payment, or other routine request for payment that is permitted under the Contract Documents and is not in dispute when submitted, is not a Claim.
- 11.1.4.** The submission may be converted to a Claim by complying with the requirements of ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
- 11.1.5.** Except for disputes arising under ARTICLE XIX LABOR STANDARDS, herein, all disputes arising under or relating to this contract, including any claims for damages for the alleged breach thereof which are not disposed of by agreement, shall be resolved under ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE.
- 11.1.6.** All Claims by the Contractor shall be made in writing and submitted to CMHA for a written decision.
  - A.** A claim by CMHA against the Contractor shall be subject to a written decision by the Contracting Officer.

### **11.2. Initiation of a Claim**

- 11.2.1.** Every Claim shall accrue upon the date of occurrence of the event giving rise to the Claim.
- 11.2.2.** Except as provided, the Contractor shall initiate every Claim by giving written notice of the Claim to CMHA within ten (10) calendar days after occurrence of the event giving rise to the Claim, with the following exceptions:
  - A.** The 10-day time limit on initiating a Claim arising from the response of an RFI by CMHA begins to run on the date of the response.
  - B.** The 10-day time limit on initiating a Claim arising from CMHA's determination concerning a Differing Site Condition begins to run on the date of the determination .
- 11.2.3.** The Contractor's written notice of a Claim shall provide the following information:
  - A.** Nature and anticipated amount of the impact, including all costs for any interference, disruption, hindrance, or delay, which shall be calculated and be a fair and reasonably accurate assessment of the damages suffered or anticipated by the Contractor;
  - B.** Identification of the circumstances responsible for causing the impact, including, but not limited to, the date or anticipated date, of the commencement of any interference, disruption, hindrance, or delay;
  - C.** Identification of activities on the Construction Progress Schedule that will be affected by the impact or new activities that may be created and the relationship with existing activities;
  - D.** Anticipated impacts and anticipated duration of any interference, disruption, hindrance, delay, or impact, and any remobilization period; and
  - E.** Recommended action to avoid or minimize any interference, disruption, hindrance, delay, or impact.
- 11.2.4.** The Contractor's failure to initiate a Claim as and when required shall constitute the Contractor's irrevocable waiver of the Claim.

### **11.3. Substantiation of Claims General**

- 11.3.1.** Within thirty (30) calendar days after the initiation of a Claim, the Contractor shall submit three (3) copies of all information and statements required to substantiate a Claim and all other information that the Contractor believes substantiates the Claim.
- 11.3.2.** The Contractor shall substantiate all of its Claims by providing the following minimum information:
  - A.** A narrative of the circumstances, which gave rise to the Claim, including without limitation the start date of the event or events and the actual or anticipated finish date;
  - B.** Detailed identification of the Work affected by the event giving rise to the Claim;
  - C.** Copies of the Contractor's daily log for each day of impact;

- D. Copies of relevant correspondence and other information regarding or supporting Contractor's entitlement;
- E. Copies of any and all information related to the Contractor's costs, including all job cost reports, bid take offs, and other financial information related to the Contractor's Claim;
- F. The notarized Certification of a Claim

**11.4. Substantiation of Claims for increase of the Contract Sum**

**11.4.1.** In addition to the minimum information required by Contractor, the Contractor shall substantiate each Claim for an increase of the Contract Sum with:

- A. Written documentation of the actual additional direct and indirect costs to the Contractor due to the event giving rise to the Claim;
- B. A written statement from the Contractor that the increase requested is the entire increase in the Contract Sum associated with the Claim; and
- C. The general substantiation documentation.

**11.5. Substantiation of Claims for Extension of the Contract Time**

**11.5.1.** In addition to the minimum information required by Contractor, the Contractor shall substantiate each Claim for an extension of the Contract Times with:

- A. Written documentation of the actual delay to the critical path of the Construction Progress Schedule due to the event giving rise to the Claim;
- B. A detailed written Proposal for an increase in the Contract Sum that would fully compensate the Contractor for all costs of acceleration of the Work needed to completely overcome the associated delay, A written statement from the Contractor that the extension requested is the entire extension of the Contract Times associated with the Claim; and
- D. The general substantiating documentation.

**11.5.2.** In addition, if adverse weather conditions are the basis for a Claim for additional time, the Contractor shall document the Claim with data substantiating that weather conditions were abnormal for the period, could not have been reasonably anticipated, and had an adverse effect on a critical element of the scheduled construction.

**11.6. Certification of a Claim**

**11.6.1.** The Contractor shall certify each Claim within thirty (30) calendar days after initiating the Claim or before Contract Completion, whichever is earlier, by providing the notarized Certification of a Claim specified below, signed and dated by the Contractor:

- A. *"The undersigned Contractor certifies that the Claim is made in good faith; that the supporting data is accurate and complete to the best of the Contractor's knowledge and belief; that the amount requested is a fair, reasonable, and necessary adjustment for which the Contractor believes that CMHA is liable; and that the undersigned is duly authorized to certify the Claim on behalf of the Contractor."*

**11.7. Delay and Delay Damage Limitations**

**11.7.1.** Subject to other provisions of the Contract, the Contractor will be entitled to an extension of the Contract Times on account of delay in the commencement or progress of Work on the critical path of the Construction Progress Schedule caused by acts of unforeseeable Nature or the public enemy, acts of the government not arising from the Contractor's failure to comply with Applicable Law, fires, floods, epidemics, weather, and labor disputes beyond the Contractor's control.

**11.7.2.** Notwithstanding any other provision of the Contract Documents to the contrary, the Contractor shall not be entitled to an increase in the Contract Sum, or an extension of the Contract Times, or both:

- A. On account of the impact of any normal adverse weather on any of the Work or on account of the impact of any abnormal adverse weather on Work not on the critical path;
- B. To the extent that a delay occurs concurrently with a delay attributable to the Contractor; or
- C. On account of the delay of any Work not on the critical path.
  - i. When the Contractor is prevented from completing any part of the Work on the critical path within the Contract Time due to weather conditions, provided the Contractor properly initiates a Claim, the Contract Time will be extended by one (1) day for each work day lost due to weather that delays Work on the critical path in excess of those in the following table:

Month	Number of Workdays Lost Due To Weather
January	8
February	8
March	7
April	6
May	5
June	4
July	4
August	4
September	5
October	6
November	6
December	6

**11.7.3.** Notwithstanding any other provision of the Contract Documents to the contrary, the Contractor shall not be entitled to an increase in the Contract Sum or any type of damages on account of a delay in the commencement or progress of Work on the critical path unless:

- A. The delay is caused by CMHA; and
- B. The delay was not authorized or permitted under the Contract.

**11.7.4.** Notwithstanding any other provision of the Contract Documents to the contrary, the Contractor shall not be entitled to an increase in the Contract Sum or any type of damages arising from a delay in the commencement or progress of any the Work caused by the occurrence or non-occurrence of an event beyond CMHA’s control such as acts of Nature or the public enemy, acts of the government, fires, floods, epidemics, labor disputes, unusual delivery delays, weather, or damages caused by the Contractor.

**11.8. Derivative Claims**

**11.8.1.** Notwithstanding any other provision of the Contract to the contrary, if CMHA prosecutes a claim, suit, or appeal against a Separate Consultant or Separate Contractor to recover damages the Contractor suffers on account of the acts or neglects of a Separate Consultant or Separate Contractor or person or entity for whom either is legally responsible, CMHA’s liability to the Contractor shall not exceed the amount CMHA actually recovers from the Separate Consultant or Separate Contractor on account of those damages less the costs CMHA incurs recovering them. CMHA is not obligated to prosecute any such claim, suit, or appeal.

**11.9. Claim Decision**

**11.9.1.** CMHA shall, within sixty (60) calendar days (unless otherwise requested), decide Claims submitted by Contractor or notify the Contractor of the date by which the decision will be made.

**11.9.2.** The Contracting Officer’s decision shall be final with respect to Claims by Contractor unless the Contractor:

- A. Appeals in writing to a higher level at CMHA in accordance with the CMHA’s policy and procedures;
- B. Refers the appeal to an independent mediator or arbitrator; or
- C. Files suit in a court of competent jurisdiction. Such suit must be filed within fifteen (15) calendar days (unless a different time period is identified in the Claim Decision) after receipt of CMHA’s decision.

**11.9.3.** The Contractor shall proceed diligently with performance of this Contract, pending final resolution of any request for relief, Claim, appeal, or action arising under or relating to the Contract, and comply with any decision of CMHA.

**11.10. Audit of a Claim**

**11.10.1.** All Claims submitted by Contractor shall be subject to audit at any time following filing of the Claim by Contractor, whether or not the Claim is part of any lawsuit.

**11.10.2.** The audit may be performed by employees of CMHA or by a consultant engaged by CMHA.

**11.10.3.** The audit may begin upon 10-days’ notice to the affected Contractor or affected Subcontractor.

**11.10.4.** The Contractor shall cooperate with the request.

**11.10.5. Failure of the Contractor or Subcontractor to produce sufficient records to allow CMHA to audit and verify a Claim shall constitute an irrevocable waiver of the Claim or portion of the Claim that could not be completely audited.**

**11.10.6.** The Contractor shall make available to CMHA all Contractor and Subcontractor documents related to the Claim including, without limitation, the following documents:

- A. Daily time sheets and superintendent's daily reports;
- B. Union agreements, if any, and employer agreements;
- C. Insurance, welfare, fringes, and benefits records;
- D. Payroll tax returns;
- E. Material invoices, purchase orders, Subcontracts, and all material and supply acquisition contracts;
- F. Material cost distribution worksheets;
- G. Equipment records (list of Contractor equipment, rates, etc.);
- H. Vendor rental agreements and Subcontractor invoices;
- I. Subcontractor payment certificates;
- J. Canceled checks (payroll and vendors);
- K. Job cost report;
- L. Job payroll ledger;
- M. General ledger, general journal, (if used) and all subsidiary ledgers and journals together with all supporting documentation pertinent to entries made in these ledgers and journals;
- N. Cash disbursements journal;
- O. Financial statements for all years reflecting operations on the Project;
- P. Income tax returns for all years reflecting operations on the Project;
- Q. Depreciation records on all equipment utilized whether the records are maintained by the Contractor, its accountant, or others;
- R. If a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all other source documents;
- S. All documents that reflect the Contractor's actual profit and overhead during the years the Project was being performed;
- T. All documents related to the preparation of the Contractor's Bid, including the final calculations on which the Bid was based, unless the documents are placed in escrow under provisions of the Instructions to Bidders;
- U. All documents that relate to the Claim together with all documents that support the amount of damages as to the Claim;
- V. Worksheets used to prepare the Claim establishing the cost components for items of the Claim including, but not limited to, labor, fringes, benefits and insurance, materials, equipment, Subcontractors, and all documents that establish the periods of time, individuals involved, the hours and rate of pay for the individuals; and
- W. All other documents required by CMHA to reasonably review the Claim.

**11.11. False Certification of a Claim**

**11.11.1.** If the Contractor falsely certifies all or any part of a Claim, the portion of the Claim falsely certified shall be denied, and may be sufficient cause for CMHA to exclude Contractor from future contracting opportunities as permitted by law.

**11.11.2.** The Contractor shall not knowingly present or cause to be presented to the Owner a false or fraudulent Claim.

- A. Knowingly shall have the same meaning as in [the Federal False Claims Act](#).

**11.11.3.** If the Contractor knowingly presents or causes to be presented a false or fraudulent Claim, then the Contractor shall be liable to the Owner for the same civil penalty and damages as the United States Government would be entitled to recover and shall also indemnify and hold the Owner harmless from all costs and expenses, including Owner's attorneys' and consultants' fees and expenses incurred in investigating and defending against such Claim and in pursuing the collection of such penalty, damages and fees and expenses.

## **12. ARTICLE XII WARRANTY**

### **12.1. Warranty of Title**

**12.1.1.** The Contractor warrants good title to all materials, supplies, and equipment incorporated in the Work and agrees to deliver the premises together with all improvements thereon free from any claims, liens or charges, and agrees further that neither it nor any other person, firm or corporation shall have any right to a lien upon the premises or anything appurtenant thereto.

### **12.2. Warranty of Construction**

**12.2.1.** In addition to any other warranties in this Contract, the Contractor warrants that work performed under this contract conforms to the Contract requirements and is free of any defect in equipment, material, or workmanship performed by the Contractor or any Subcontractor or supplier at any tier.

**A.** Work not conforming to those requirements, including Substitutions not properly approved and authorized, may be considered Defective Work.

**B.** If required by CMHA, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

**12.2.2.** The Contractor shall remedy, at the Contractor's expense, any Work that does not conform to the requirements of the Contract Documents, or any Defective Work.

**A.** In addition, the Contractor shall remedy, at the Contractor's expense, any damage to CMHA-owned or controlled real or personal property when the damage is the result of:

**i.** Any action or inaction by Contractor;

**ii.** The Contractor's failure to conform to Contract requirements; or

**iii.** Any defects of equipment, material, workmanship or design furnished by the Contractor.

**12.2.3.** The Contractor shall restore any work damaged in fulfilling the terms and conditions of Warranty of Construction.

**A.** The Contractor's Warranty with respect to work repaired or replaced shall be extended for a period of not less than one year, beyond the original Warranty period required under the Contract, of repair or replacement.

**12.2.4.** CMHA shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect or damage.

**A.** If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, CMHA shall have the right to replace, repair or otherwise remedy the failure, defect, or damage at the Contractor's expense.

**12.2.5.** With respect to all warranties, express or implied, from Subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall:

**A.** Obtain all warranties that would be given in normal commercial practice;

**B.** Require all warranties to be executed in writing, for the benefit of CMHA; and

**C.** Enforce all warranties for the benefit of CMHA.

**12.2.6.** If the Contractor or a Subcontractor recommends a particular product, material, system, or item of equipment for incorporation into the Project and CMHA accepts that recommendation, the above Warranty shall include a warranty from the Contractor to CMHA that the recommended product, material, system, or item of equipment is fit and appropriate for the associated purpose.

### **12.3. Warranty Walk-through Contractor**

**12.3.1.** At CMHA's request, Contractor shall perform a walkthrough of the property no earlier than three months prior to the expiration of any Warranty.

**A.** If Contractor is unavailable for the Warranty walk-thru, the Warranty shall be extended until the time Contractor is available.

### 13. ARTICLE XIII BONDS

#### 13.1. Bid Bond/Guaranty

- 13.1.1.** The Contractor shall provide to CMHA a Bid Guaranty in the form of either:
- A.** A Bond for 10% of the Bid; or
  - B.** A certified check, cashier's check or letter of credit revocable only at the option of CMHA and shall be in the amount of 10% of the Bid.
- 13.1.2.** The Bid Guaranty shall be conditioned to:
- A.** Provide that Contractor will, after award, enter into a contract with CMHA in accordance with the bid, plans, details, and specifications.
  - B.** If the Bidder fails to enter into the Contract and CMHA awards Contract to next lowest bidder, the Bidder and the Surety on the Bidder's Bid are liable to CMHA for the lessor of either:
    - i.** The difference between the Bidder's Bid amount and the bid amount of the next lowest bidder;
    - or
    - ii.** For a penal sum of the Bond in the amount of 10% of the Bidder's Bid.
  - C.** If CMHA does not award the Contract to the next lowest bidder but resubmits the Project for bidding, the Bidder failing to enter into the Contract and the Surety on the Bidder's Bond are liable to CMHA for a penal sum on the Bond not to exceed 10% of the amount of the Bidder's Bid amount.
- 13.1.3.** Where CMHA accepts a Bid but the Bidder fails or refuses to enter into a Contract in accordance with the Contract Documents included with the Bid, including the plans, details, and specifications, within ten (10) calendar days after Notice of Intent, the Bidder and Surety on any Bond are liable for the amount of the difference between the amount of the Bidder's Bid and the amount of the Bid from next lowest Bidder.
- 13.1.4.** All Bid Guaranties shall be payable to CMHA, be for the benefit of CMHA and be deposited with CMHA.

#### 13.2. Payment and Performance Bond

- 13.2.1.** In addition to any other requirements in the Contract Documents, Contract Commencement does not occur until CMHA receives a Payment and Performance Bond.
- 13.2.2.** Contractor shall, within ten (10) calendar days of CMHA's delivery of signed Contract to Contractor, unless otherwise specified by CMHA in writing, deliver to CMHA a payment and performance bond with a penal sum in the amount of 100% of the Contract Sum (which includes all acceptable alternates).
- 13.2.3.** The Payment and Performance Bond shall contain the following a condition that indemnifies CMHA against all damages suffered by CMHA as a result of the failure of Contractor to perform the Work in accordance with the requirements of the Contract Documents, including, the plans, details, and specifications, and the Payment and Performance Bond shall state that Contractor shall pay all lawful claims of Subcontractors, material suppliers, and laborers for labor performed or material furnished in carrying forward, performing or completing the Contract.
- 13.2.4.** All Bonds requirement by the Contract shall be obtained from companies holding certificates of authority as acceptable sureties and shall be listed on the U.S Treasury Circular 570 (T-List).
- A.** Each company shall be licensed to do business in Ohio and satisfactory to CMHA.
- 13.2.5.** The Contractor shall submit with each executed Bond:
- A.** A certified copy of the authority to act (power of attorney) of the agent signing the Bond on behalf of the Surety, and
  - B.** A current signed Certificate of Compliance issued by the Ohio Department of Insurance demonstrating that Surety is licensed to do business in Ohio.
- 13.2.6.** If the Contract Sum increases at any time such that it exceeds the sum of the Bond, the Contractor shall cause the penal sum of the Bond to be increased such that the sum equals one-hundred percent of the increased Contract Sum.
- 13.2.7.** Any time Contractor increases the sum of the Bond, the Contractor shall deliver to CMHA written consent of the affected Surety confirming the increased penal sum of the Bond.
- A.** CMHA's receipt of that written consent is a condition precedent to CMHA's obligation to pay the Contractor for any portion of the Work associated with the increase.
- 13.2.8.** If notice of any change affecting the Contract is required by any Surety or by the provision of any Bond, the Contractor shall provide that notice.



## 14. ARTICLE XIV INSURANCE

### 14.1. Contractor's General Insurance Requirements

- 14.1.1. Throughout the performance of the Work or longer as may be described below, the Contractor and each Subcontractor shall obtain, pay for and keep in force, the minimum insurance coverage.
- 14.1.2. On a case-by-case basis, CMHA and Contractor may mutually agree to adjust the insurance requirements for any particular subcontractor.
- 14.1.3. All insurance shall be carried with companies which are financially responsible and admitted to do business in the State of Ohio.
  - A. If any such insurance is due to expire prior to Contract Completion, the Contractor (including Subcontractors, as applicable) shall not permit the coverage to lapse and shall furnish evidence of coverage to the Contracting Officer.
  - B. All certificates of insurance, as evidence of coverage, shall provide that no coverage may be canceled or non-renewed by the insurance company until at least thirty (30) calendar days prior written notice has been given to CMHA.

### 14.2. Minimum Coverage Requirements

#### 14.2.1. Workers' Compensation:

- A. In accordance with the State of Ohio Workers' Compensation laws

#### 14.2.2. Commercial General Liability

- A. With a combined single limit for bodily injury and property damage of not less than \$1,000,000 per occurrence unless otherwise specified by CMHA in writing, to protect the Contractor and each subcontractor against claims for bodily injury or death and damage to the property of others.
- B. This shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability.
- C. If the Contractor has a "claims made" policy, then the following additional requirements apply:
  - i. The policy must provide a "retroactive date" which must be on or before the execution date of the Contract; and
  - ii. The extended reporting period may not be less than five years following the completion date of the Contract.

#### 14.2.3. Employers Liability Coverage

- A. Unless otherwise specified by CMHA in writing, the Contractor shall maintain employer's liability coverage with:
  - i. An each accident limit of not less than \$1,000,000;
  - ii. A disease each-employee limit of not less than \$1,000,000; and
  - iii. A disease policy limit of not less than \$1,000,000.

#### 14.2.4. Automobile Liability

- A. On owned and non-owned motor vehicles used on the site(s) or in connection therewith for a combined single limit for bodily injury and property damage of not less than \$ 1,000,000 per occurrence.

#### 14.2.5. Builder's Risk Insurance

- A. Before commencing Work, the Contractor shall furnish CMHA with a certificate of insurance evidencing that **Builder's Risk** (fire and extended coverage) **Insurance** on all work in place and/or materials stored at the building site(s), including foundations and building equipment, is in force.
  - i. The Builder's Risk Insurance shall be for the benefit of the Contractor and CMHA as their interests may appear and each shall be named in the policy or policies as an insured.
  - ii. The Contractor if installing equipment supplied by CMHA shall carry insurance on such equipment from the time the Contractor takes possession thereof until the Contract work is accepted by CMHA.
  - iii. The Builder's Risk Insurance need not be carried on excavations, piers, footings, or foundations until such time as work on the superstructure is started.
  - iv. It need not be carried on landscape work.

- v. Policies shall furnish coverage at all times for the full cash value of all completed construction, as well as materials in place and/or stored at the site(s), whether or not partial payment has been made by CMHA.
- vi. The Contractor may terminate this insurance on buildings as of the date CMHA issues a Certificate of Contract Completion.
- B. The amount of Builder's Risk coverage shall not be less than the total completed value of the Project, including the value of permanent fixtures and decorations, with a deductible of not more than \$25,000 per occurrence.
  - i. Contractor shall be responsible for paying all deductibles for any and all claims made under the Builder's Risk policy; and,
  - ii. Any deductible over the amount specified in this provision shall be authorized in writing by CMHA.
- C. Coverage shall include a provision to pay the reasonable extra costs of acceleration and expediting temporary and permanent repairs to, or permanent replacement of, damaged property.
  - i. This shall include overtime wages and the extra costs of "express" or other means of expedited transportation and/or delivery of supplies necessary to the repair or replacement.
- D. Coverage shall include "soft costs endorsement" including, but not limited to, the reasonable extra costs of the A/E and reasonable Contractor extension or acceleration costs.
- E. Coverage shall include material in transit or stored in off-site and identified for the Project.
- F. Coverage shall waive all rights between CMHA, Contractor, and Subcontractors at any tier, for damages caused by fire or any other perils to the extent of actual recovery of any insurance proceeds under the policy.
- G. Coverage shall include appropriate sub-limits for installation coverage.
- H. Coverage shall include provisions for mechanical or electrical breakdown, or boiler system testing.
- I. Coverage shall include temporary structures and scaffolding, along with collapse coverage.
- J. Coverage shall be primary to all other applicable insurance.
- K. The Builder's Risk policy shall specifically permit partial occupancy by CMHA prior to Contract Completion and coverage shall remain in effect until CMHA issues a Certificate of Contract Completion.
- L. The Contractor's tools and equipment shall not be covered under the Builder's Risk policy.
  - i. It is the Contractor's sole responsibility to maintain insurance coverage for tools and equipment used on the Project, which shall be included in its Overhead (a component of Contractor's Fee) and not included as a separate item in Contractor's Schedule of Values.
- M. If Contractor is involved solely in the installation of material and equipment and not in new building construction, the Contractor shall purchase and maintain a Builder's Risk, Builder's Risk-renovations, or installation floater insurance policy that complies with the requirements of Article XIV.

**14.2.6. Umbrella/Excess Liability**

- A. The Contractor may employ an umbrella/excess liability policy to achieve the above required minimum coverage.
- B. Unless otherwise specified by CMHA in writing, for Construction Contracts in excess \$1,000,000, the Contractor shall maintain umbrella/excess liability coverage with a limit of not less than \$2,000,000 (in addition to the above-required limits) if the Work (or Work to be performed by the Subcontractor) includes any of the following:
  - i. Brick/block masonry;
  - ii. Exterior caulking/sealant;
  - iii. Cast-in-place or precast concrete;
  - iv. Damp proofing/waterproofing;
  - v. Electrical;
  - vi. Elevator;
  - vii. Exterior glass and/or glazing;
  - viii. Exterior marble, granite, and/or other stonework;
  - ix. Miscellaneous metals;
  - x. Plaster/stucco;
  - xi. Plumbing;

- xii. HVAC;
  - xiii. Roofing and/or sheet metal;
  - xiv. Scaffolding;
  - xv. Spray-on fireproofing;
  - xvi. Sprinkler and/or fire protection; or
  - xvii. Structural steel and/or metal deck.
- C. Unless otherwise specified by CMHA in writing, the Contractor shall maintain umbrella/excess liability coverage with a limit of not less than \$5,000,000 (in addition to the above-required limits) if the Work (or the Work to be performed by the Subcontractor) includes any of the following:
- i. Caissons and/or piles;
  - ii. Major Demolition;
  - iii. Excavation and/or utility work;
  - iv. Sheeting, shoring, and/or underpinning;
  - v. Window washing equipment; or
  - vi. Wrecking.

**14.2.7. Professional Liability – Contractor**

- A. Unless otherwise specified by CMHA in writing, the Contractor shall maintain professional liability insurance (including without limitation for sprinkler and/or fire protection and other design-build work included in the Work) without design-build exclusions with a limit not-less than \$1,000,000 each claim and an annual-aggregate limit of not less than \$2,000,000.
- B. The professional liability policy shall have an effective date on or before the date that the Contractor first started to provide any Project-related services.
- C. Upon submission of the associated certificate of insurance and at each policy renewal, the Contractor shall advise CMHA in writing of any actual or alleged claims that may erode the professional liability limits.
- D. The Contractor shall maintain the professional liability insurance in effect for no less than 5 years after the earlier of the termination of the Contract or Substantial Completion of all Work.

**14.2.8. Additional Property Insurance**

- A. For any demolition, blasting, excavating, tunneling, shoring, or similar operations, the Contractor shall provide and maintain Property Damage Liability insurance with a limit of liability equal to the limit as specified in the applicable provisions of ARTICLE XIV INSURANCE.

**14.2.9. Equipment Coverage**

- A. CMHA will not insure or be liable for damage to any Contractor or Subcontractor owned, leased, rented, or borrowed tools, equipment, or vehicles.
- B. The Contractor and Subcontractors are solely responsible for maintaining all insurance necessary to cover their tools, equipment, and vehicles.

**14.3. Waivers of Subrogation**

**14.3.1.** To the fullest extent permitted by applicable laws, the Contractor waives all rights against CMHA and its agents and employees for damages to the extent covered by any insurance, except rights to the proceeds of that insurance.

- A. All policies shall accomplish the waiver of subrogation by endorsement or otherwise.

**14.3.2.** CMHA and Contractor waive all rights against each other for damages caused by fire or other perils to the extent actual recovery of any insurance proceeds under any property insurance or Builder’s Risk insurance applicable to the Work.

## **15. ARTICLE XV INDEMNIFICATION**

- 15.1.** To the fullest extent permitted by Applicable Law, the Contractor shall indemnify, defend, and hold harmless the Indemnified Parties from and against all claims, costs, damages, losses, fines, penalties, and expenses (including but not limited to all fees and charges of attorneys and other professionals, and all court, arbitration, or other dispute-resolution costs) arising out of or in connection with the Project.
- 15.2.** The Contractor's indemnification obligation under ARTICLE XV INDEMNIFICATION exists regardless of whether or not and the extent to which the claim, damage, loss, fine, penalty, or expense is caused by a party indemnified under ARTICLE XV INDEMNIFICATION.
- 15.2.1.** Nothing in ARTICLE XV INDEMNIFICATION obligates the Contractor to indemnify any individual or entity from and against the consequences of that individual or entity's own negligence.
- 15.3.** The Contractor's obligations under ARTICLE XV INDEMNIFICATION shall not extend to the liability of the A/E, A/E's consultants, agents, representatives, or employees for negligent preparation or approval of Drawings, Specifications, Change Orders, opinions, and other responsibilities of the A/E, except to the extent covered by the Contractor's insurance.
- 15.4.** In claims against an Indemnified Party by any direct or indirect employee (or the survivor or personal representative of that employee) of the Contractor or a person or entity for whom the Contractor may be liable, the indemnification obligation under ARTICLE XV INDEMNIFICATION will not be limited by a limitation on the amount or type of damages, compensation, or benefits payable under workers' compensation acts, disability benefit acts, or other employee benefits acts.
- 15.5.** The Contractor's indemnification obligation under ARTICLE XV INDEMNIFICATION will survive termination of the Contract and Date for Contract Completion.
- 15.6.** CMHA may deduct from the Contract Sum any claims, losses, fines, penalties, and expenses for which the Contractor is liable under ARTICLE XV INDEMNIFICATION.
- 15.6.1.** If those claims, damages, losses, fines, penalties and expenses exceed the unpaid balance of the Contract Sum, the Contractor shall immediately pay the difference to CMHA.

**16. ARTICLE XVI DAMAGES**

**16.1. Liquidated Damages**

- 16.1.1.** If the Contractor fails reach Substantial Completion within the Contract Time for Substantial Completion, including any properly approved extension for the Contract Time for Substantial Completion, the Contractor shall pay to CMHA as Liquidated Damages **as outlined in 16.1.4.**
  - A.** Liquidated Damages for the Date for Contract Completion and any Milestone Dates in the Contract, not including Substantial Completion, shall be assessed on in accordance
  - B.** To the extent that the Contractor’s delay or non-performance is excused under another clause in this Contract, Liquidated Damages shall not be due CMHA.
  - C.** The Contractor remains liable for damages caused other than by delay.
- 16.1.2.** If CMHA terminates the Contractor’s right to proceed, the resulting damage will consist of Liquidated Damages incurred until the Date of Contract Completion, together with any increased costs incurred by CMHA in completing the Work.
- 16.1.3.** If CMHA does not terminate the Contractor’s right to proceed, the resulting damage will consist of Liquidated Damages incurred until the Date of Contract Completion.
- 16.1.4.** If the Contractor fails to achieve a Milestone Date, excluding the Date for Substantial Completion, within the associated Contract Time, the Contractor shall (at CMHA’s option) pay to or credit CMHA the Liquidated Damages per day sum determined according to the following schedule for each day that the Contractor fails to achieve a Milestone within the associated Contract Time.

<b>Contract Sum</b>	<b>Liquidated Damages per day</b>
Less than \$100,000	\$200
From \$100,000 to \$500,000	\$400
From \$500,000.01 to \$1,000,000	\$500
From \$1,000,000.01 to \$3,000,000	\$750
More than \$3,000,000	\$1,000

- 16.1.5.** If the Contractor simultaneously fails to achieve two or more Milestones, including the Date for Substantial Completion, CMHA shall be entitled to recover the sum of the associated Liquidated Damages per day rates.
- 16.1.6.** The Liquidated Damages described are only intended to compensate CMHA for the direct damages it incurs as a result of the Contractor’s failure to achieve the Milestones, including the Date for Substantial Completion, within their associated Contract Times.
- 16.1.7.** The Liquidated Damages described are not intended to compensate CMHA for any damages CMHA incurs on account of:
  - A.** Any claims attributable to the Contractor that are brought by others including Separate Consultants and Separate Contractors; or
  - B.** Any failure of the Contractor to timely, properly, and completely perform the Contract other than the failure to achieve the Milestones, including the Date for Substantial Completion, within their associated Contract Times.
- 16.1.8.** The parties acknowledge that the above-listed Liquidated Damages per day sums are not penalties, and they each irrevocably waive the right (if any) to challenge the validity and enforceability of those Liquidated Damages per day sums.
  - A.** Notwithstanding any other provision of the Contract Documents to the contrary, if a court determines that the Liquidated Damages per day sums or their application are void and unenforceable, CMHA shall be entitled to recover the actual damages that it incurs on account of the Contractor’s failure to achieve the Date for Substantial Completion and/or one or more of the Milestones within the applicable Contract Times.
- 16.1.9.** In addition to other rights that CMHA may have relative to the Liquidated Damages, CMHA may deduct the Liquidated Damages from the Contract Sum as the damages accrue.

- A. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall immediately pay the amount of the insufficiency to CMHA. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, associated with the failure of the Contractor to timely and properly reimburse CMHA for any Liquidated Damages.

**16.2. Mutual Waiver of Consequential Damages**

**16.2.1.** Except as provided Liquidated Damages, CMHA and Contractor each waive against the other all Claims for consequential damages that may arise out of or relate to this Contract.

- A. CMHA's waiver includes Claims for loss of use, income, profit, revenue, financing, cost of capital, business and reputation, management and employee productivity, and consequential damages arising from termination of the Contract or related to insolvency.
- B. The Contractor's waiver includes:
  - i. Claims for unabsorbed home-office overhead;
  - ii. Any other form of overhead in excess of that specifically provided for;
  - iii. Delay damages except as otherwise specifically provided for;
  - iv. Increased cost of funds for the Project;
  - v. Lost opportunity to work on other projects;
  - vi. Losses of financing, business, and reputation;
  - vii. Loss of profit except anticipated profit, arising directly from properly performed Work;
  - viii. Loss of bonding capacity; and
  - ix. Consequential damages arising from termination of the Contract or related to insolvency.

**16.2.2.** Notwithstanding Section 16.2.1, this Section 16.2:

- A. Does not apply to any damages that would be covered by insurance provided in connection with the Project if the Contract did not include Section 16.2.1 ;
- B. Does not apply to the Contractor's indemnity obligations for third-party claims against the Indemnified Parties even if those claims are for damages that Section 16.2.1 would otherwise preclude;
- C. Does not preclude CMHA's recovery of Liquidated Damages; and
- D. Does not apply to Claims for damages arising from CMHA's or the Contractor's gross negligence or willful misconduct.

**16.3.** This ARTICLE 16 shall survive termination of the Contract.

## 17. ARTICLE XVII EQUAL OPPORTUNITY

### 17.1. Prohibition Against Discrimination

17.1.1. During the performance of this Contract, the Contractor agrees as follows:

- A. Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicap.
- B. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, national origin, or handicap.
  - i. Such action shall include, but not be limited to:
    - (a) Employment;
    - (b) Upgrading;
    - (c) Demotion;
    - (d) Transfer
    - (e) Recruitment or recruitment advertising;
    - (f) Layoff or termination;
    - (g) Rates of pay or other forms of compensation; and
    - (h) Selection for training, including apprenticeship.
- C. The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by CMHA that explain ARTICLE XVII EQUAL OPPORTUNITY.
- D. The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor; state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, or handicap.
- E. The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under ARTICLE XVII EQUAL OPPORTUNITY, and post copies of the notice in conspicuous places available to employees and applicants for employment.
- F. The Contractor shall comply with [Executive Order 11246, as amended](#), and the rules, regulations, and orders of the Secretary of Labor.
- G. The Contractor shall furnish all information and reports required by [Executive Order 11246, as amended](#), [the Rehabilitation Act of 1973, as amended](#), and by rules, regulations, and orders of the Secretary of Labor, pursuant thereto.
  - i. The Contractor shall permit access to its books, records, and accounts by the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- H. In the event of a determination that the Contractor is not in compliance with ARTICLE XVII EQUAL OPPORTUNITY or any rule regulations, or order of the Secretary of Labor, this contract may be canceled, terminated or suspended in whole or in part, and the Contractor may be declared ineligible for further Government Contracts, or Federally assisted construction contracts under the procedures authorized, in [Executive Order 11246, as amended](#).
  - i. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in [Executive Order 11246, as amended](#), the rules, regulations, and orders of the Secretary of Labor, or as otherwise provided by law, including the following as provided by ORC:
    - (a) In the event Contractor fails to comply with these nondiscrimination provisions, CMHA shall deduct from the amount payable to the Contractor a forfeiture of the statutory penalty pursuant to ORC for each person who is discriminated against or intimidated.
    - (b) The Contract may be terminated or suspended in whole or in part by CMHA and all money due hereunder may be forfeited in the event of a subsequent violation of the foregoing nondiscrimination provisions.
    - (c) The Contractor shall include the terms and conditions of ARTICLE XVII EQUAL OPPORTUNITY in every Subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor under [Executive Order 11246, as amended](#), so that these terms and conditions will be binding upon each Subcontractor or vendor.

- (d) The Contractor shall take such action with respect to any subcontract or purchase order as the Secretary of Housing and Urban Development or the Secretary of Labor may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into the litigations to protect the interests of the United States.
- I. Compliance with the requirements of ARTICLE XVII EQUAL OPPORTUNITY shall be to the maximum extent consistent with, but not in derogation of compliance with the Indian Self-Determination and Education Assistance Act and the Indians Preference clause of this Contract.
- J. The Contractor shall cooperate fully with the States Equal Opportunity Coordinator (EOC), with any other official or agency of the state or federal government that seeks to eliminate unlawful employment discrimination, and with all other state and federal efforts to assure equal employment practices under the Contract.



## **18. ARTICLE XVIII SECTION 3**

- 18.1.** In order to promote Employment, Training, and Contracting Opportunities for Low-Income Persons, the Contractor shall participate in CMHA's Section 3 Program.
- 18.2.** The Work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended.
- 18.2.1.** The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- 18.3.** The parties to this Contract agree to comply with HUD's regulations in [24 CFR](#), which implement Section 3.
- 18.3.1.** As evidence by the execution of the Contract, the parties to this Contract certify that they are under no contractual or other impediments that would prevent them from complying with the regulations.
- 18.4.** The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a narrative advising the labor organization or workers' representative of the Contractor's commitments, and will post copies of this notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice.
- 18.4.1.** The notice shall describe the preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work will begin.
- 18.5.** The Contractor agrees to include ARTICLE XVIII SECTION 3 in every subcontract subject to compliance with regulations in [24 CFR](#), and agrees to take appropriate action, as provided in an applicable provision of the Subcontract or in ARTICLE XVIII SECTION 3, upon a finding that the Subcontractor is in violation of the regulations in [24 CFR](#).
- 18.5.1.** The Contractor will not Subcontract with any Subcontractor where the Contractor has notice or knowledge that the Subcontractor has been found in violation of the regulations in [24 CFR](#).
- 18.6.** The Contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the Contractor is selected but before the Contract is executed, and (2) with persons other than those to whom the regulations of [24 CFR](#) require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under [24 CFR](#).
- 18.7.** Noncompliance with HUD's regulations in [24 CFR](#) may result in sanctions, termination of this Contract for default, and debarment or suspension from future HUD assisted contracts.
- 18.8. Section 3 Reporting Requirements**
- 18.8.1.** Monthly Section 3 Compliance Reports are to be submitted to the Economic Inclusion Coordinator.
- 18.8.2.** These reports should include a listing of the Contractor's current local workforce, any new hiring or subcontracting that has occurred, along with identifying information on all new hires and all subcontractors.
- 18.9.** The Contractor shall cooperate fully with requests for additional Section 3 information and documentation **as needed by** CMHA or the Contracting Authority.

## 19. ARTICLE XIX LABOR STANDARDS

### 19.1. Compliance with [Davis Bacon and Related Acts](#) requirements

19.1.1. All rulings and interpretations of the [Davis Bacon and Related Acts](#) contained in 29 CFR are herein incorporated by reference in this Contract.

### 19.2. Minimum Wages

19.2.1. All laborers and mechanics employed under this Contract in the development or construction of the project(s) involved will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act, the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

- A. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the [Davis-Bacon Act](#) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of [29 CFR](#); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the regular weekly period, are deemed to be constructively made or incurred during such weekly period.
- B. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in [29 CFR](#).
- C. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.
- D. The wage determination (including any additional classification and wage rates conformed under [29 CFR](#) and the [Davis-Bacon poster \(WH-1321\)](#) shall be posted at all times by the Contractor and its Subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

19.2.2. Any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination.

- A. HUD shall approve any additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:
  - i. The work to be performed by the classification requested is not performed by a classification in the wage determination;
  - ii. The classification is utilized in the area by the construction industry; and
  - iii. The proposed wage rate, including bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- B. If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employee Standards Administration, U.S. Department of Labor, Washington, DC 20210.
  - i. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within thirty (30) calendar days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary.
- C. In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator of the Wage and Hour Division for determination.

i. The Administrator or an authorized representative, will issue a determination within thirty (30) calendar days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time was necessary.

D. The wage rate (including fringe benefits where appropriate) shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in classification.

**19.2.3.** Whenever the minimum wage rate prescribed in the Contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

**19.2.4.** If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the [Davis-Bacon Act](#) have been met.

A. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

**19.3. Withholding of Funds**

**19.3.1.** HUD or its designee shall, upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this Contract or any other Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to [Davis-Bacon prevailing wage](#) requirements, which is held by the same prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the Contract.

A. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working in the construction or development of the Project, all or part of the wages required by the contract, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

B. HUD or its designee may, after written notice to the Contractor or Subcontractor, issue payment to the respective employees to whom they are due.

**19.4. Payrolls and Basic Records**

**19.4.1.** Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working in the construction or development of the Project.

A. Such records shall contain:

i. The name, address, and social security number of each such worker;

ii. His or her correct classification

iii. Hourly rates of wages paid

(a) Including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in the [Davis-Bacon Act](#);

iv. Daily and weekly number of hours worked;

v. Deductions made; and

vi. Actual wages paid.

B. Whenever the Secretary of Labor has found, under [29 CFR](#), that the wages of any laborer or mechanic include the amount of costs reasonably anticipated in providing benefits under a plan or program described in the [Davis-Bacon Act](#), the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

- i. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

**19.4.2.** The Contractor shall submit for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer for transmission to HUD or its designee.

- A.** The payrolls submitted shall set out accurately and completely all of the information required to be maintained.
- B.** This information may be submitted in any form desired.
  - i. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.
- C.** The Contractor is responsible for the submission of copies of payrolls by all Subcontractors (Approved by the Office of Management and Budget under OMB Control Number 1214-0149).
  - i. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or Subcontractor, or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
    - (a)** That the payroll for the payroll period contains the information required to be maintained and that such information is correct and complete;
    - (b)** That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or from the full wages earned, other than permissible deductions as set forth in [29 CFR](#); and
    - (c)** That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated in to the Contract.
  - ii. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirements for submission of the "Statement of Compliance".
  - iii. The falsification of any of the above certifications may subject the Contractor or Subcontractor to civil or criminal prosecution under Title 18 and Title 31 of the United States Code.

**19.4.3. Records**

- A.** The Contractor or Subcontractor shall make the records available for inspection, copying, or transcription by authorized representatives of HUD or its designee, the Contracting Officer, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job.
- B.** If the Contractor or Subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds.
- C.** Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to [29 CFR](#).

**19.5. Apprentices & Trainees**

**19.5.1.** Apprentices will be permitted to work at less than predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship and Training, Employer and Labor Services (OATELS), or with a State Apprenticeship Agency recognized by OATELS, or if a person is employed in his or her first ninety (90) calendar days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

- A.** The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program.

- i. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.
  - ii. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.
- B. Where a Contractor is performing construction on a project in a locality other than that in which registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed.
- C. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination.
  - i. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program.
  - ii. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification.
  - iii. If the Administrator of the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.
- D. In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

**19.5.2. Trainees**

- A. Except as provided for in [29 CFR](#), trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.
- B. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.
- C. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination.
  - i. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program.
  - ii. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices.
  - iii. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed.
  - iv. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed.
- D. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work until an acceptable program is approved.

**19.5.3. Equal Employment Opportunity**

- A. The utilization of apprentices, trainees, and journeymen shall be in conformity with the equal employment opportunity requirements of [Executive Order 11246, as amended](#) and [29 CFR](#).

**19.6. Compliance with Copeland Act requirements**



19.6.1. The requirements of [29 CFR](#), which are hereby incorporated by reference in this Contract

**19.7. Contract Termination; Debarment**

19.7.1. A breach of ARTICLE XIX LABOR STANDARDS may be grounds for termination of the Contract and for debarment as a Contractor and a subcontractor.

**19.8. Disputes Concerning Labor Standards**

19.8.1. Disputes arising out of the labor standards provisions of Disputes Concerning Labor Standards shall not be subject to ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE of this contract.

A. Such disputes shall be resolved in accordance with the procedures of the Department of Labor.

19.8.2. Disputes within the meaning of Disputes Concerning Labor Standards include disputes between the Contractor (or any of its Subcontractors) and CMHA, HUD, the U.S. Department of Labor, or the employees or their representatives.

**19.9. Certification of Eligibility**

19.9.1. By entering into this Contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded contracts by virtue of the [Davis-Bacon Act](#) or [29 CFR](#).

19.9.2. No part of this Contract shall be subcontracted to any person or firm ineligible for award of a United States Government contract by virtue of the [Davis-Bacon Act](#) or [29 CFR](#).

19.9.3. The penalty for making false statements is prescribed in the U. S. Criminal Code [18 U.S.C.](#)

**19.10. Contract Work Hours and Safety Standards Act**

19.10.1. As used in 19.10 - Contract Work Hours and Safety Standards Act, the terms "laborers" and "mechanics" include watchmen and guards.

**19.10.2. Overtime Requirements**

A. No Contractor or Subcontractor contracting for any part of the Contract Work which may require or involve the employment of laborers or mechanics, including watchmen and guards, shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one half pay for all hours worked in excess of 40 hours in such workweek.

**19.10.3. Violation; liability for unpaid wages; Liquidated Damages**

A. In the event of any violation, the Contractor and any Subcontractor responsible therefor shall be liable for the unpaid wages.

B. In addition, such Contractor and Subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages.

C. Such liquidated damages shall be computed with respect to each individual laborer or mechanic (including watchmen and guards) employed in violation, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages.

**19.10.4. Withholding for unpaid wages and liquidated damages**

A. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of Work performed by the Contractor or Subcontractor under any such Contract or any Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or Subcontractor for unpaid wages and liquidated damages.

**19.11. Subcontracts**

19.11.1. The Contractor or Subcontractor shall insert in any Subcontracts all the provisions contained in Subcontracts, and such other clauses as HUD or its designee may by appropriate instructions require, and also a clause requiring the Subcontractors to include these provisions in any lower tier Subcontracts.

19.11.2. The prime Contractor shall be responsible for the compliance by any Subcontractor or lower tier Subcontractor with all these provisions.

**19.12. Non-Federal Prevailing Wage Rates**

**19.12.1.** Any prevailing wage rate (including basic hourly rate and any fringe benefits), determined under State or tribal law to be prevailing, with respect to any employee in any trade or position employed under the Contract, is inapplicable to the Contract and shall not be enforced against the Contractor or any Subcontractor, with respect to employees engaged under the contract whenever such non-Federal prevailing wage rate exceeds:

- A.** The applicable wage rate determined by the Secretary of Labor pursuant to the [Davis-Bacon Act \(40 U.S.C.\)](#) to be prevailing in the locality with respect to such trade;
- B.** An applicable apprentice wage rate based thereon specified in an apprenticeship program registered with the U.S. Department of Labor (DOL) or a DOL- recognized State Apprenticeship Agency; or
- C.** An applicable trainee wage rate based thereon specified in a DOL-certified trainee program.

## **20. ARTICLE XX HEALTH, SAFETY AND ACCIDENT PREVENTION**

### **20.1. General Contractor Requirements**

**20.1.1.** In performing this Contract, the Contractor shall:

- A.** Take reasonable precautions to ensure safety of individuals on the Project;
- B.** Ensure that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his/her health and/or safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation;
- C.** Protect the lives, health, and safety of other persons;
- D.** Prevent damage to property, materials, supplies, and equipment; and
- E.** Avoid work interruptions.

**20.1.2.** For these purposes, the Contractor shall:

- A.** Comply with regulations and standards issued by the Secretary of Labor .
  - i.** Failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act; and
- B.** Include the terms of ARTICLE XX HEALTH, SAFETY AND ACCIDENT PREVENTION in every Subcontract that such terms will be binding on each Subcontractor.
- C.** The Contractor shall be responsible for its Subcontractors' compliance with the provisions of ARTICLE XX HEALTH, SAFETY AND ACCIDENT PREVENTION.
  - i.** The Contractor shall take such action with respect to any Subcontract as CMHA, the Secretary of Housing or Secretary of Labor shall direct as a means of enforcing such provisions.
- D.** The Contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this Contract resulting in death, traumatic injury, occupational diseases or damages to property, materials, supplies, or equipment, and shall report this data in the manner prescribed by [29 CFR](#);
- E.** The Contractor shall pay any fine or cost incurred because of Contractor's violation, or alleged violation, of any Applicable Law.

### **20.2. Notification of Non-Compliance Procedure**

**20.2.1.** To the extent CMHA is aware of Contractor's noncompliance with the safety requirements in the Contract, CMHA shall notify the Contractor of any noncompliance with these requirements and of the corrective action required. However, CMHA's failure to notify Contractor of noncompliance with any applicable safety requirements, does not relieve Contractor of any obligation to comply with safety requirements for the Project.

- A.** This notice, when delivered to the Contractor or the Contractor's representative at the site of the work, shall be deemed sufficient notice of the noncompliance and corrective action required.

**20.2.2.** After receiving the notice, the Contractor shall immediately take corrective action.

**20.2.3.** If the Contractor fails or refuses to take corrective action promptly, CMHA may issue an order stopping all or part of the work until satisfactory corrective action has been taken.

**20.2.4.** The Contractor shall not base any claim or request for equitable adjustment for additional time or money on any stop order issued under Section 20.2.

### **20.3. Safety Plan**

**20.3.1.** The Contractor is responsible for designing and implementing its own site-specific safety plan, including compliance with OSHA regulations and such plan shall meet or exceed CMHA's site-specific safety plan (if any).

**20.3.2.** Before starting any Work, the Contractor shall submit to CMHA a copy of the Contractor's site-specific safety plan and safety manuals.

### **20.4. Safety Data Sheets**

**20.4.1.** The Contractor shall identify any material it uses at the Site with a Safety Data Sheet ("SDS") meeting the requirements of OSHA's Hazardous Communication Standard.

**20.4.2.** The Contractor shall maintain a notebook containing all of its applicable SDSs.

- A.** This notebook shall be kept at the Site for the duration of the Project.

### **20.5. Hazardous Materials**



**20.5.1. Prohibition Against Hazardous Materials**

- A. The Contractor shall not introduce Hazardous Materials to the Project

**20.5.2. Work Stoppage Due to Hazardous Materials**

- A. If the Contractor encounters material the Contractor reasonably believes to be, or contain, a Hazardous Material that has not been rendered harmless, the Contractor shall immediately stop Work in the affected area and verbally report the condition to CMHA, and within one (1) business day deliver written notice of the condition to CMHA.
- B. CMHA will promptly determine the necessity of CMHA retaining a qualified environmental consultant to evaluate the suspected Hazardous Material and to issue a related written report.
  - i. Where appropriate, CMHA will engage a licensed abatement contractor to remove the material or render it harmless as directed.
- C. The Contractor shall resume Work in the affected area upon written notice from CMHA that:
  - i. The suspect material was evaluated and found not to be or contain a Hazardous Material; or
  - ii. The suspect material has been removed or rendered harmless.
- D. If the Contractor knowingly or negligently proceeds with the Work in an area where a Hazardous Material exists and has not been rendered harmless, the Contractor shall be solely responsible for all related claims, damages, losses, and expenses, including, but not limited to, attorneys' fees, arising out of or resulting from performing the Work in the affected area. Further, to the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, associated with Contractor knowingly or negligently proceeds with the Work in an area where a Hazardous Material exists and has not been rendered harmless.
- E. The term "rendered harmless" means that the level of exposure is less than any applicable exposure standards set forth in Applicable Law.

**20.6. Fires or Hot-Work**

**20.6.1.** Contractor shall not burn any fires on the Site(s).

- A. The Contractor shall notify the Project Manager twenty-four (24) hours before the start of non-routine or non-recurring hot-work.
  - i. Use of sources of fire, flame or sparks and flammable materials shall be kept to an absolute minimum.
  - ii. At the beginning of the Project, the Contractor shall inform the Project Manager of its intent to use blowtorches, welding apparatus or similar exposed flame and sparking devices.
  - iii. Similar notice shall be given in regard to the use of flammable liquids, adhesives, and cleaners.
- B. The Contractor shall furnish an appropriate number of fire extinguishers (minimum of 1), which shall be within the immediate areas where work is being done at all times.
  - i. The extinguisher shall be adequate and suitable for the class of fire likely to be caused by the Contractor's operations.

**20.7. Explosives and Blasting**

**20.7.1.** The Contractor shall not conduct blasting on, or bring explosives to the Work Site without written approval of CMHA and other authorities with jurisdiction.

**20.7.2.** The Contractor shall perform all blasting, storing, and handling of explosives as required under Applicable Law.

**20.7.3.** The Contractor shall carry appropriate liability insurance coverage, as required by the Contract Documents, for its blasting and explosives storage and handling operations.

- A. Immediately upon request, the Contractor shall deliver evidence of that insurance to CMHA.

## **21. ARTICLE XXI CONTRACT DOCUMENTS AND CONTRACT RECORDS**

### **21.1. Examination and Retention of Contractor's Records**

- 21.1.1.** CMHA, HUD, or the Comptroller of the United States, or any of their duly authorized representatives shall, until three (3) years after final payment under this Contract, have access to and the right to examine any of the Contractor's directly pertinent books, documents, papers, or other records involving transactions related to this Contract for the purpose of making audit, examination, excerpts, and transcriptions.
- 21.1.2.** The Contractor agrees to include in first-tier Subcontracts under this Contract a clause substantially the same as 21.1.1.
- A.** "Subcontract," as used in Examination and Retention of Contractor's Records, excludes purchase orders not exceeding \$10,000.
- 21.1.3.** The periods of access and examination for records relating to (1) appeals under ARTICLE XI DISPUTE RESOLUTION/CLAIM PROCEDURE of this contract, (2) litigation or settlement of claims arising from the performance of this Contract, or (3) costs and expenses of this Contract to which CMHA, HUD, or Comptroller General or any of their duly authorized representatives has taken exception shall continue until disposition of such appeals, litigation, claims, or exceptions.
- 21.1.4.** To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, arising out of or related to any dispute regarding what Person or Persons should be given access to the documents under Section 21.1.
- 21.1.5.** The right of inspection, audit, and reproduction extends to all documents necessary to permit CMHA, or its agents, to perform a complete evaluation of all of the Contractor's costs related to the Project, including, but not limited to, the cost of pricing data submitted along with the computations and projections used therein.
- 21.1.6.** If the Contract has been terminated, in whole or in part, the records relating to the Work terminated shall be made available to CMHA for a period of six (6) years from the date of termination.

### **21.2. Examination and Audit of Contractor's Records**

- 21.2.1.** CMHA may examine all books, records, documents and other data of the Contractor and its Subcontractors related to the bidding, pricing, or performance of the Work for any purpose, including, but not limited to, evaluating any Contractor Payment Request, Proposal, Modification, or Claim.
- 21.2.2.** The above referenced materials shall be made available at the office of the Contractor or Subcontractor, as applicable, at all reasonable times for inspection, audit, and reproduction until the expiration of six (6) years after the date of Substantial Completion of all Work.
- A.** The Contractor shall maintain, and require its Subcontractors to maintain, complete and accurate business records at its principal place of business.
- i.** If the principal place of business is greater than 50 miles from the Site, the Contractor shall timely make records available, and shall require its Subcontractors to timely make records available, at the office of CMHA upon request for the records.
- B.** To the extent that the Contractor or Subcontractor, as applicable, informs CMHA in writing that any documents provided to CMHA are trade secrets, CMHA shall treat these documents, to the extent permitted by law, as trade secrets of the Contractor or Subcontractor, as applicable.
- i.** To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend and hold harmless CMHA, from and against all claims, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, arising out of or related to any dispute regarding what Person or Persons should be given access to the documents under Section 21.2.
- 21.2.3.** The right of inspection, audit, and reproduction extends to all documents necessary to permit adequate evaluation of the cost of pricing data submitted along with the computations and projections used therein.
- 21.2.4.** If the Contract has been terminated, in whole or in part, the records relating to the Work terminated shall be made available to CMHA for a period of six (6) years from the date of termination.

21.2.5. Records that relate to disputes, litigation, or settlement of Claims arising out of the performance of the Work shall be made available until the dispute, litigation or Claims have been finally decided or settled.

**21.3. Ownership of Contract Documents**

21.3.1. CMHA shall have exclusive ownership of, all proprietary interest in, and the right to full and exclusive possession of all information, materials and documents discovered or produced by Contractor pursuant to the terms of this Contract, including but not limited to reports, memoranda, drawings or letters concerning the research and reporting tasks of this Contract.

21.3.2. For data other than computer software, the Contractor grants to CMHA and others acting on its behalf, a paid-up, nonexclusive, irrevocable, world-wide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly by or on behalf of CMHA.

21.3.3. CMHA alone owns the Contractor's Documents and the Contract Documents and every right, title, and interest therein.

21.3.4. The Contractor must execute and deliver and cause its agents and subcontractors to execute and deliver, to CMHA any transfers, assignments, documents or other instruments necessary to vest in CMHA the complete right, title, interest in and ownership of the Contractor's Documents.

21.3.5. The Contractor may retain copies of the Contractor's Documents and the Contract Documents for information, reference, and performance of the Work.

21.3.6. The submission or distribution of the Contractor's Documents or the Contract Documents to meet official regulatory requirements or for similar purposes in connection with the Project is not a waiver of CMHA's reserved rights in the Contractor's Documents.

A. Any unauthorized use of the Contractor's Documents or the Contract Documents shall be at the sole risk of the entity making the unauthorized use.

**21.4. Intent of Contract Documents**

21.4.1. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of Work by the Contractor.

21.4.2. The Contract Documents are complementary, and what is required by one is binding as if required by all.

21.4.3. The Contractor shall provide all labor materials necessary for the entire completion of the Work described in the Contract Documents and reasonably inferable to produce the intended results.

21.4.4. The Drawings govern dimensions, details, and location of the Work.

A. The Specifications govern the quality of materials and workmanship.

21.4.5. The organization of the Specifications in divisions, sections, and articles, and the arrangement of Drawings shall not restrict the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

21.4.6. Unless otherwise defined in the Contract Documents, words that have well known technical or construction industry meanings are used within those recognized meanings.

**21.5. Use of Electronic Files**

21.5.1. CMHA and Contractor reasonably expect that they will provide Electronic Files to each other to facilitate the design and construction of the Project consistent with current practices and customs in the construction industry.

21.5.2. CMHA and Contractor acknowledge that the use of Electronic Files involves risks not generally associated with the use of paper documents.

A. Those risks may include, but not be limited to, alteration (inadvertent or intentional) and deterioration, both of which may not be apparent through casual observation.

21.5.3. In the event of a discrepancy between information contained in a paper version of a document and the Electronic File of that document, the paper will govern.

21.5.4. Use of Electronic Files does not relieve the Contractor of its responsibility for the preparation, completeness, or accuracy of the Contractor's Documents.

**21.6. Order of Precedence**

21.6.1. In the event of any inconsistency or conflict within any of the Contract Documents, the Contractor shall provide the better quality of Work and comply with the stricter requirement.

**21.6.2.** In the event of a conflict between the contract and any applicable state or local law or regulation, the state or local law or regulation shall prevail; provided that such state or local law or regulation does not conflict with, or is less restrictive than applicable federal law, regulation, or Executive Order.

**A.** In the event of such a conflict, applicable federal law, regulation, and Executive Order shall prevail.

## **22. ARTICLE XXII MISCELLANEOUS**

### **22.1. Assignment**

**22.1.1.** The Contractor shall not assign or transfer any interest in this Contract; except that Claims for monies due or to become due from CMHA under the Contract may be assigned to a bank, trust company, or other financial institution.

- A.** Such assignments of claims shall only be made with the written concurrence of CMHA.
- B.** If the Contractor is a partnership, this contract shall inure to the benefit of the surviving or remaining member(s) of such partnership as approved by CMHA.

**22.1.2.** Assignment of Antitrust Claims:

- A.** By signing the Agreement, the Contractor assigns, conveys and transfers to CMHA any right, title, and interest to any claims or causes of action it may have or acquire under state or federal antitrust laws relating to any goods, products, or services purchased, procured, or rendered to CMHA pursuant to the Contract.

**22.1.3.** CMHA and Contractor each bind themselves, their successors, assigns and legal representatives, to the other party to this Contract and to the successors, assigns, and legal representatives of the other party with respect to the Contract.

### **22.2. Contractor Performance Evaluation**

**22.2.1.** CMHA may evaluate the Contractor's Performance at any time including without limitation during the progress of the Work, at the completion of a phase of the Project, and/or completion of the Project.

**22.2.2.** CMHA shall retain the evaluation.

- A.** The Contractor may request a copy of the completed evaluation(s).
  - i.** If the Contractor wishes to comment or take exception to any rating or remark, the Contractor must send a response in writing to CMHA within thirty (30) calendar days of Contract Completion and/or Termination.
- B.** CMHA may use the evaluation(s) in determining the responsibility of the Contractor for award of future contracts.
- C.** Poor evaluations may lead to a determination that Contractor is not responsible and therefore ineligible for award of future contracts for a period of not less than one year.
- D.** CMHA may request information from the Contractor for use in evaluating the A/E's performance.
  - i.** If information is requested, the Contractor shall comply in a timely and responsive manner.
- E.** If a breach of the Contract is committed by the Contractor or is attributable to a Subcontractor, that breach will be used in the responsibility analysis of the Contractor and Subcontractor (where applicable) for future contracts or subcontracts for a period of five (5) years after the date of the breach unless said breach results in Contractor being placed on debarment list, then for the period provided therein.

### **22.3. Prohibition Against Liens**

**22.3.1.** The Contractor is prohibited from placing a lien on CMHA's property.

- A.** This prohibition shall apply to all Subcontractors at any tier and all materials suppliers.

### **22.4. Conflict of Interest**

#### **22.4.1. Interest of Members of Congress**

- A.** No member of or delegate to the Congress of the United States of America shall be admitted to any share or part of this contract or to any benefit that may arise therefrom.

#### **22.4.2. Interest of Members, Officers, or Employees and Former Members, Officers, or Employees**

- A.** No member, officer, or employee of CMHA, no member of the governing body of the locality in which the Project is situated, no member of the governing body of the locality in which CMHA was activated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the Project, shall, during his or her tenure, or for one year thereafter, have any interest, direct or indirect, in this Contract or the proceeds thereof.

### **22.5. Limitation on Payments Made to Influence Certain Federal Financial Transactions**

**22.5.1.** The Contractor agrees to comply with Title 31, United States Code which prohibits the use of Federal appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions:

- A. The awarding of any Federal contract;
- B. The making of any Federal grant;
- C. The making of any Federal loan;
- D. The entering into of any cooperative agreement; or
- E. The modification of any Federal Contract, grant, loan, or cooperative agreement.

**22.5.2.** The Contractor further agrees to comply with the requirement of the Act to furnish a disclosure (OMB Standard Form LLL, Disclosure of Lobbying Activities) if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

**22.6. Procurement of Recovered Materials**

**22.6.1.** In accordance with the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, the Contractor shall procure items designated in guidelines of the Environmental Protection Agency (EPA) [40 CFR](#) that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition.

- A. The Contractor shall procure items designated in the EPA guidelines that contain the highest percentage of recovered materials practicable unless the Contractor determines that such items:
  - i. Are not reasonably available in a reasonable period of time;
  - ii. Fail to meet reasonable performance standards, which shall be determined on the basis of the guidelines of the National Institute of Standards and Technology, if applicable to the item; or
  - iii. Are only available at an unreasonable price.

**22.6.2.** 22.6.1 shall apply to items purchased under this contract where:

- A. The Contractor purchases in excess of \$10,000 of the item under this contract; or
- B. During the preceding:
  - i. Purchased any amount of the items for use under a contract that was funded with Federal appropriations and was with a Federal agency or a State agency or agency of a political subdivision of a State; and
  - ii. Purchased a total of in excess of \$10,000 of the item both under and outside that contract.

**22.7. Royalties and Patents**

**22.7.1.** The Contractor shall pay all royalties and license fees and assume all costs incident to the use, in the performance of the Work or the incorporation in the Work, of any design, inventions, process, product, or device that is the subject of patent rights or copyrights held by others.

- A. Contractor shall defined all suits or claims for infringement of any patent rights or copyrights and shall save CMHA harmless from loss on account thereof; except that CMHA shall be responsible for all such loss when a particular design, process, or the product of a particular manufacturer or manufacturers is specified and the Contractor has no reason to believe that the specified design, process, or product is an infringements.
- B. If, however, the Contractor has reason to believe that any design, process or product specified is an infringement of a patent or copyright, the Contractor shall promptly notify the Contracting Officer.
  - i. Failure to give such notice shall make the Contractor responsible for resultant loss.

**22.8. Contract Time for Substantial Completion**

**22.8.1.** The Contractor shall have the Work Substantially Complete within 180 calendar days of the date for commencement of the Work established in the Notice to Proceed issued by CMHA. If a Notice to Proceed is not issued, the date for commencement of the Work shall be the effective date of the Contract.

**22.9. Other Contracts**

**22.9.1.** CMHA may undertake or award other contracts for additional work at or near the site of the Work under this contract.

**22.9.2.** The Contractor shall fully cooperate with the other contractors and with CMHA employees and shall carefully adapt scheduling and performing the work under this Contract to accommodate the additional work, heeding any direction that may be provided by CMHA.

**22.9.3.** The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by CMHA employees.

**22.10. Drug-Free Workplace**

**22.10.1.** Each contractor shall be enrolled in and in good standing and shall require all subcontractors with whom the Contractor is in contract for the public improvement to be enrolled in and be in good standing in the Bureau of Workers' Compensation's Drug-Free Workplace Program or a comparable program approved by the Bureau that meets the requirements specified in the Revised Code prior to a subcontractor providing labor at the Project site of the public improvement.

**22.11. Energy Efficiency and Sustainability Requirements**

**22.11.1.** The Contractor shall comply with mandatory standards and policies relating to energy efficiency which are contained in the energy conservation plan issued in compliance with the Energy Policy and Conservation Act for the State in which the work under the contract is performed.

**22.11.2.** If the Project is designed and constructed under the Leadership in Energy and Environmental Design ("LEED") Rating System developed by the U.S. Green Building Council or another rigorous rating system used to facilitate achievement of sustainability goals for the Project, the Contractor shall provide submittals certifying achievement of sustainable designed rating system criteria for verification by the Green Building Certification Institute or other third party in accordance with the Contract Documents.

**22.12. Clean Air and Water**

**22.12.1.** The Contractor shall comply with the Clean Air Act, as amended [42 USC](#), the Federal Water Pollution Control Water Act, as amended [33 U.S.C.](#), and standards issued pursuant thereto in the facilities in which this Contract is to be performed.

**22.13. Public Relations**

**22.13.1.** Public relations or publicity about the Project shall be solely within the control of and consent of CMHA.

**22.13.2.** Contractor shall submit to CMHA all advertising and publicity related matter relating to this Contract, including without limitation, information provided in social media, wherein CMHA's name is mentioned or language used from which the connection of CMHA's name may, in CMHA's judgment, be inferred or implied.

**A.** Contractor shall not publish or use such advertising and publicity matters without prior express written consent of CMHA.

**22.14. Governing Law**

**22.14.1.** This Contract shall be governed and construed exclusively by its terms and by the laws of the State of Ohio and any suit filed to enforce any term of this Contract shall be filed only in a court of competent jurisdiction in Hamilton County, Ohio.

**22.14.2.** The parties to this Contract shall comply with applicable law.

**22.15. Written Notice**

**22.15.1.** Notice under the Contract Documents shall be validly given if:

**A.** Delivered personally to a member of the organization for whom the notice is intended.

**22.16. Taxes**

**22.16.1.** Parties acknowledge that CMHA is a tax exempt entity and Contractor must use tax exemption status for all purchases made for the Project in which tax exemption is permitted under law.

**22.17. Computing Time**

**22.17.1.** When the Contract Documents refer to a period of time by a number of days, the period shall be computed to exclude the first and include the last day of the period.

**A.** If the last day of the period falls on a Saturday or Sunday, or a legal holiday, that day shall be omitted from the computation and the period shall end on the next business day.

**22.17.2.** Except as excluded, the Contract Times and all other periods referred to in the Contract Documents includes Saturdays, Sundays, and all days defined as legal holidays below.

**22.17.3.** The standard workdays for the Work are Monday through Friday, excluding legal holidays.

**22.17.4.** The Legal Holidays are as follows:

- A. New Year's Day
- B. Martin Luther King Jr. Day
- C. President's Day
- D. Memorial Day
- E. Independence Day
- F. Labor Day
- G. Columbus Day
- H. Veterans Day
- I. Thanksgiving Day
- J. Christmas Day

**22.18. Time is of the Essence**

**22.18.1.** All time limits set forth in the Contract Documents are of the essence.

- A. By signing this Contract, Contractor acknowledges that the Contract Times are reasonable, taking into consideration the usual weather and other conditions prevailing in the locality of the Project.
- B. By signing the Construction Progress Schedule, the Contractor acknowledges that the specified Milestone dates and the Date for Substantial Completion are reasonable, taking into consideration the usual weather and other conditions prevailing in the locality of the Project.

**22.18.2.** The Notice to Proceed establishes the date for commencement of the Work.

**22.18.3.** The Contractor acknowledges that it may be subject to interference, disruption, hindrance, or delay in the progress of the Work from any cause.

- A. The sole remedy for such interference, disruption, hindrance, or delay shall be an extension of the Contract Time MODIFICATIONS, unless otherwise required by law.

**22.19. Extent of Contract**

**22.19.1.** The Contract Documents represent the entire and integrated agreement between CMHA and the Contractor and supersede all prior negotiations, representations, or agreement, either written or oral.

**22.19.2.** This Contract may be executed in any number of counterparts, each of which shall be regarded as original and all of which constitute but one and the same instrument.

**22.19.3.** The captions and headings in this Contract are for convenience only and in no way define, limit, or describe the scope or intent of any of the provisions or sections hereof.

**22.20. Severability**

**22.20.1.** If any provision of this Contract is determined by a court having jurisdiction to be unenforceable to any extent, the rest of the provisions of this Contract will remain enforceable to the fullest extent permitted by law.

**22.21. Facsimile/Electronic Mail Signature**

**22.21.1.** Any party hereto may deliver a copy of its counterpart signature page of any Contract Documents via email, fax, or web-based project management software.

**22.21.2.** Each party shall be entitled to rely upon a scanned or facsimile signature of the other party in such a manner as if such a signature were an original.

**22.22. No Third Party Interest**

**22.22.1.** Except as expressly provided herein, no person or entity, other than CMHA and Contractor, will have any right or interest under the Contract, and the Contract does not create a contractual relationship of any kind between any persons or entities other than CMHA and the Contractor.

**22.23. No Waiver**

**22.23.1.** The failure of CMHA or Contractor to insist on anyone or more instances upon strict performance of any one or more of the provisions of the Contract or to exercise any rights under the Contract or provided by law will not be construed as a waiver or relinquishment of that provision or of the right to subsequently demand strict performance or exercise the right and the rights will continue unchanged and remain in full force and effect.

**22.24. Assignment of Antitrust Claims**

**22.24.1.** By signing this Contract, the Contractor conveys, assigns and transfers to CMHA any right, title, and interest in any claims or causes of action it may have or acquire under state or federal antitrust laws relating to any goods, products, or services purchased, procured, or rendered to CMHA pursuant to this Contract.



**22.25. Survival of Obligations**

**22.25.1.** All representations, indemnity obligations, warranties, guarantees, and other expressed continuing obligations under the Contract, will survive final payment, completion and acceptance of the Work, and termination or completion of the Contract.

**22.26. Force Majeure**

**22.26.1.** Neither party shall be liable for failure to perform if such failure is caused by conditions beyond its control including, but not limited to, Acts of God, Government restrictions (including the denial or cancellation of any export or other necessary license), wars, and/or insurrections.

**22.27. Privacy**

**22.27.1.** The Contractor agrees to Comply with the [Privacy Act of 1974](#) (the Act) and the agency rules and regulations issued under the Act and any Personal information collected, used, or acquired in connection with this Contract shall be protected against unauthorized use, disclosure, modification or loss.

**22.27.2.** Contractor shall ensure that its directors, officers, employees, subcontractors or agents use personal information solely for the purposes of accomplishing the services set forth herein.

**22.27.3.** Contractor agrees not to release, divulge, publish, transfer, sell or otherwise make known to unauthorized persons personal information without express written consent of CMHA or otherwise required by law.

**22.27.4.** Contractor agrees to indemnify and hold harmless CMHA for any damages related to Contractor's unauthorized use of personal information.

**22.28. Contractor Status**

**22.28.1.** It is understood that the Contractor is an independent contractor and is not to be considered an employee of CMHA, or assume any right, privilege or duties of an employee.

## **23. ARTICLE XXIII DEFINITIONS AND TERMINOLOGY**

- 23.1.** Whenever used in the Contract Documents, the terms listed below will have the meanings meaning ascribed which are applicable to both the singular and the plural and the male and female gender thereof:
- 23.1.1. Abandonment**
- A. A willful decision by the Contractor suspending the progress of the work for an uninterrupted period of three (3) or more consecutive days (excluding weekends and holidays) and such suspension was not requested by CMHA and not caused by natural occurrences or acts of God.
- 23.1.2. Acceptable Component**
- A. A component listed in the Specifications after the Basis of Design Component.
- 23.1.3. Addenda**
- A. Written or graphic instruments issued prior to the opening of Bids that clarify, correct, or change the Bidding requirements or the Contract Documents.
- 23.1.4. Agreement**
- A. The form provided by CMHA, including all of its exhibits, that, when completed and signed by the Contractor and CMHA is evidence of the execution of the Contract.
- 23.1.5. Allowance**
- A. An amount budgeted for during the Bidding process for an item that has yet to be specified or defined and for which no exact dollar amount is available.
- 23.1.6. Alternate**
- A. A change in the proposed Project scope, which may include alternate materials or methods of construction and an amount stated on the Bid form to be added or deducted from the Base-Bid if the corresponding Alternate is incorporated into the Contract.
- 23.1.7. Applicable Law**
- A. All federal, state, and local codes, statutes, ordinances, and regulations that apply to the performance of the Work.
- 23.1.8. Architect/Engineer (A/E)**
- A. The person or other entity engaged by the CMHA to perform architectural, engineering, design, and other services related to the work as provided for in the Contract.
- B. When CMHA uses an engineer to act in this capacity, the terms “architect” and “engineer” shall be synonymous.
- 23.1.9. Asbestos**
- A. Any material that contains more than one percent (1%) asbestos fiber and is friable or is releasing asbestos fibers into the air above current action levels established by OSHA
- 23.1.10. As-Built Documents**
- A. Drawings, addenda, Specifications, executed Change Orders and other elements of the Contract Documents which the Contractor annotates and otherwise modified to indicate changes made during the construction process, the location of concealed and buried items, and other information useful to CMHA throughout the life of the completed Project.
- 23.1.11. Base-Bid**
- A. The amount stated in a Bid as the sum for which the Bidder offers to perform the Work in a particular trade or other category, which is described in the Contract Documents, excluding Alternates.
- 23.1.12. Basis of Design**
- A. A document that records the concepts, calculations, decisions, and product selections used to meet CMHA’s Project Requirements and to satisfy applicable regulatory requirements, standards, and guidelines.
- B. The document includes both narrative descriptions and lists of individual items that support the design process.
- 23.1.13. Basis of Design Component**
- A. A component listed first in the Specifications.
- 23.1.14. Bid**
- A. The written offer of a Bidder submitted on the prescribed CMHA Bid Form setting forth the prices for the Work to be performed.

**23.1.15. Bidder**

- A. The person that submits a Bid.

**23.1.16. Bid Form**

- A. A form furnished by CMHA with the proposed Contract Documents that is to be completed, signed, and submitted containing the Bidder's Bid.

**23.1.17. Bid Guaranty**

- A. A bid bond or other instrument of security authorized by [24 CFR](#) submitted with the Bid to provide assurance that the Bidder will execute the Agreement.

**23.1.18. Bond**

- A. Bid, performance and payment bonds and other instruments of security submitted by the Contractor to assure that the Contractor will perform the Work of the Contract, including making payment to Subcontractors and Material Suppliers.

**23.1.19. Building Information Model (BIM)**

- A. A digital representation of physical and functional characteristics of a facility and a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle; defined as existing from earliest conception to demolition.
  - i. It describes the process of designing a building collaboratively using one coherent system of computer models rather than as separate sets of drawings.

**23.1.20. Building Permit**

- A. The term building permit as used in the Contract Documents shall mean any and all permits required to comply with local and state building codes.

**23.1.21. Certificate of Completion or Certificate of Contract Completion**

- A. A form, issued by CMHA, that documents the Contractors achievement of Contract Completion.

**23.1.22. Certificate of Substantial Completion**

- A. A form, issued by CMHA, which is used to document:
  - i. That the Contractor has achieved Substantial Completion of the Work or a designated portion of the Work; and
  - ii. The date on which the associated Substantial Completion of the Work was achieved.

**23.1.23. Change Order**

- A. A document recommended by the A/E and executed by CMHA and the Contractor that modifies the Contract and authorizes an addition, deletion, or revision in the work and an adjustment in the Contract Sum or the Contract Time or both.

**23.1.24. Change Order Request**

- A. A CMHA prescribed form issued after execution of the Contract requesting a Change Order from the Contractor(s), which may initiate a Change Order to modify the Contract.

**23.1.25. Claim**

- A. A demand or assertion, initiated by written notice as prescribe in the Contract Documents, by the Contractor or CMHA seeking an adjustment of Contract Sum or Contract Time or both, or other relief with respect to the terms of the Contract.

**23.1.26. Claim Affidavit**

- A. A sworn document used in conjunction with filing a lien, which contains a claim on the funds that are due to a Contractor, in favor of a person supplying labor, materials or services for the value of labor, materials, or services supplied.

**23.1.27. Construction**

- A. The term used to include new construction, reconstruction, renovation, restoration, rehabilitation, major repair, demolition and all similar work upon buildings and ancillary facilities, including any draining, dredging, grading or similar work upon real property.

**23.1.28. Construction Progress Schedule**

- A. The critical path schedule for performance of the Contract; showing the time for completing the Work within the Contract Times; the planned sequence for performing the various components of the Work; the interrelationship between the activities of the Contractor, A/E, and CMHA; and the Contractor's resource and cost loading information; as periodically updated during the performance of the Work.

**23.1.29. Contract**

- A. The contract entered into between the Contractor and CMHA.
  - B. It includes:
    - i. The Bid;
    - ii. The Bid Bond;
    - iii. The Performance and Payment Bond or Bonds or other assurance of completion;
    - iv. The Certifications, Representations, and Other Statements of Bidders;
    - v. The HUD General Conditions of the Contract for Construction;
    - vi. The CMHA Construction Contract General Terms and Conditions;
    - vii. The applicable wage rate determinations from the U.S. Department of Labor;
    - viii. Any special conditions included elsewhere in the contract;
    - ix. The specifications; and
    - x. Drawings
  - C. It includes all formal changes to any of those documents by addenda, Change Order or modification.
- 23.1.30. Contract Documents**
- A. Collectively, the documents that constitute the substance of the Contract including, but not limited to:
    - i. The Bid;
    - ii. The Bid Bond;
    - iii. The Performance and Payment Bond or Bonds or other assurance of completion;
    - iv. The Certifications, Representations, and Other Statements of Bidders;
    - v. The HUD General Conditions of the Contract for Construction;
    - vi. The CMHA Construction Contract General Terms and Conditions;
    - vii. The applicable wage rate determinations from the U.S. Department of Labor;
    - viii. Any special conditions included elsewhere in the contract;
    - ix. The specifications; and
    - x. Drawings
  - B. It includes all formal changes to any of those documents by addenda, Change Order or modification.
- 23.1.31. Contract Commencement Date**
- A. The date established in the Notice to Proceed issued by CMHA to the Contractor to mark the start of the Work and the beginning of the running of the Contract Time. If a Notice to Proceed is not issued, the Contract Commencement Date shall be the effective date of the Contract.
- 23.1.32. Contract Completion Date**
- A. The date by which the Work must be finally complete
  - B. The Contract Completion Date is established in Section 9.8 herein.
- 23.1.33. Contract Sum**
- A. The Contractor's entire compensation for the Contractor's proper, timely, and complete performance of the Work and is subject to adjustment as provided in the Contract.
- 23.1.34. Contract Time**
- A. The periods stipulated in the Agreement for the achievement of associated Milestones and Substantial Completion, in consecutive days, beginning on the date established by the Notice to Proceed, including adjustments authorized by executed Change Orders.
- 23.1.35. Contractor**
- A. The person or other entity entering into the Contract with CMHA to perform all of the work required under the Contract.
- 23.1.36. Contractor Payment Application Request**
- A. The form furnished by CMHA that is to be used by the Contractor in requesting payments and which, when signed by the Contractor, shall serve as an affidavit that payments requested are in proportion to the Work completed as shown on the Schedule of Values.
- 23.1.37. Contractor's Documents**
- A. All Project-related documents, including those in electronic form, prepared by the Contractor and its Subcontractors.
- 23.1.38. Contractor's Fee**

- A. The portion of the Contract Sum attributable to the aggregate of the Contractor's profit and home-office overhead related to the Contractor's proper, timely, and complete performance of the Work.

**23.1.39. Contractor's Punch List**

- A. A document prepared by the Contractor that consists of a list of items of Work to be completed or corrected by the Contractor as a condition precedent to Contract Completion.

**23.1.40. Coordination Drawings**

- A. Drawings and Electronic Files prepared by the Contractor to demonstrate how multiple-system and interdisciplinary work will be coordinated.
- B. Clash reports generated by BIM authoring software may be included in the Coordination Drawing submittals if applicable.

**23.1.41. Correction Period**

- A. A period of one-year commencing on the date of Substantial Completion of the Work or a designated portion of the Work which CMHA has agreed to take Partial Occupancy.

**23.1.42. Day**

- A. A calendar day of twenty-four (24) hours measured from midnight to midnight, unless otherwise expressly specified to mean a business day.

**23.1.43. Defective Work**

- A. Work that:
  - i. Does not conform to the Contract Documents;
  - ii. Does not meet the requirements of any applicable statute, rule or regulation, inspection, reference standard, test or approval;
  - iii. Has been damaged prior to the A/E's recommendation of final payment, unless responsibility for the protection thereof has been expressly assumed by CMHA; or
  - iv. That is not free from defects in workmanship, materials or equipment during the period of any warranty or guarantee

**23.1.44. Differing Site Condition**

- A. Subsurface or latent physical conditions at the site which differ materially from those indicated in this Contract; or
- B. Unknown physical conditions at the site(s), of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the Contract Documents.

**23.1.45. Drawings**

- A. The drawings enumerated in the schedule of drawings contained in the Specifications and as described in the Contract Documents; and
- B. Graphic portions of the Contract Documents, showing the design, type of construction, location, dimension, and character of the Work to be provided by the Contractor, which generally includes plans, elevations, sections, details, schedules, diagrams, notes, and text.

**23.1.46. Electronic File**

- A. Information maintained in a computer system or format that is intended to facilitate a Person's use and manipulation of the information including but not limited to Word, Excel, PDF, Primavera, CAD, and BIM files all in their native format.

**23.1.47. Enclosure, Permanent**

- A. The condition in which the permanent exterior walls and roofs are in place, insulated, weatherproof and weather-tight, and permanent windows and entrances are in place

**23.1.48. Enclosure, Temporary**

- A. The condition in which the permanent exterior walls and roofs are in place, insulated, weatherproof and weather-tight, and windows and entrances are provided with suitable temporary enclosures

**23.1.49. Estimated Construction Cost**

- A. The sum of the Estimated Contract Cost amounts published in the Solicitation, as modified by Addenda, for a phase of the Project.

**23.1.50. Estimated Contract Cost**

- A. The estimated amount for the Contract published in the Solicitation, including the Base Bid estimate and the estimates of selected Alternates, if any, as modified by Addenda.

**23.1.51. Extra Materials**

- A. Materials required by the Contract Documents that are not incorporated into the Project but are given to CMHA to be used for future maintenance or repairs.

**23.1.52. Final Inspection**

- A. The final review of the Work of the Contractor by the A/E and CMHA to determine whether issuance of the Certificate of Contract Completion will be issued by CMHA.

**23.1.53. Frivolous RFI**

- A. RFI's that request information that is evident in the Contract Documents and/or RFI's that do not comply with the definition of an RFI as indicated below.

**23.1.54. General Conditions**

- A. CMHA's General Conditions currently in effect, which may be modified by the CMHA from time to time.

**23.1.55. General Conditions Costs**

- A. General Conditions Costs include only the Contractor's costs to provide the general conditions Work including without limitation the costs of all of the following Site related items:
  - i. Scheduling and coordinating the Work;
  - ii. Telephone;
  - iii. Telephone charges;
  - iv. Facsimile;
  - v. Telegrams;
  - vi. Postage
  - vii. Photos
  - viii. Photocopying;
  - ix. Hand tools;
  - x. Simple scaffolds (one level high);
  - xi. Tool breakage;
  - xii. Tool repairs;
  - xiii. Tool replacement;
  - xiv. Tool blades;
  - xv. Tool bits; and
  - xvi. Pre-approved travel, lodging, and parking costs
- B. General Conditions Costs also include:
  - i. Bond premiums; and
  - ii. Premiums for Builder's Risk insurance, if the Contractor is required to purchase a Builder's Risk insurance policy for the Project.

**23.1.56. Hazardous Materials**

- A. Any material, substance, pollutant, or contaminant that is defined, regulated, referenced, or classified in the Comprehensive Environmental Response, Compensation and Liability Act, Federal Water Pollution Control Act, the Resource Conservation and Recovery Act, Clean Air Act, Hazardous Materials Transportation Uniform Safety Act, Toxic Substances Control Act, or any other Applicable Law relating to any hazardous, toxic, or dangerous waste, substance, or material.
- B. Any substance or material that, after release into the environment or upon exposure, ingestion, inhalation, or assimilation, either directly from the environment or directly by ingestion through food chains, will, or may reasonably be anticipated to, cause death, disease, behavior abnormalities, cancer or genetic abnormalities and specifically includes but is not limited to asbestos, polychlorinated biphenyls ("PCBs"), radioactive materials, including radon and naturally occurring radio nuclides, natural gas, natural gas liquids, liquefied natural gas, synthetic gas, oil, petroleum and petroleum-based derivatives and urea formaldehyde.

**23.1.57. HUD**

- A. The United States of America acting through the Department of Housing and Urban Development including the Secretary, or any other person designated to act on its behalf.

- B. HUD has agreed, subject to the provisions of an Annual Contributions Contract (ACC), to provide financial assistance to CMHA, which includes assistance in financing the work to be performed under this Contract.
- C. As defined elsewhere in Contract Documents, the determination of HUD may be required to authorize changes in the work or for release of funds to CMHA for payment to the Contractor.
- D. Notwithstanding HUD's role, nothing in this Contract shall be construed to create any contractual relationship between Contractor and HUD.

**23.1.58. Indemnified Parties**

- A. CMHA, the A/E, other Separate Consultants, and their respective officials, officers, consultants, agents, representatives, and employees, in both individual and official capacities.

**23.1.59. Install**

- A. Put into use or place in final position, complete and ready for intended service or use.

**23.1.60. Liquidated Damages**

- A. A sum established in the Contract Documents, pursuant to the statutory delay forfeiture authorized under ORC and federal regulations, to be paid to CMHA due to the Contractor's failure to complete the Work within the Contract Time for achievement of Substantial Completion, or any applicable portion of the Work on or prior to any Milestone date stated on the Contract Documents.

**23.1.61. Material Supplier**

- A. A Person under a contract with the Contractor to furnish materials or supplies in furtherance of the Work, including all such Persons in any tier.
- B. Material Supplier does not include any Separate Contractor unless expressly assigned in writing to the Contractor by CMHA and accepted by the Contractor.

**23.1.62. Milestone**

- A. A principal event specified in the Contract relating to an intermediate completion date or time prior to Substantial Completion of all Work.

**23.1.63. Modification**

- A. A written amendment to the Contract signed by both parties;
- B. A Change Order;
- C. A Change Directive; or
- D. An order for a minor change in the Work.

**23.1.64. Notice of Commencement**

- A. A notice prepared by CMHA identifying the Project, the Contractors, the Surety for each Contractor, and the name CMHA's representative upon whom a Claim Affidavit may be served.

**23.1.65. Notice of Intent to Award**

- A. A written notice provided by CMHA to the apparent successful Bidder stating that upon satisfactory compliance with all conditions precedent for execution of a Contract within the time specified CMHA intends to execute a Contract with the Bidder.

**23.1.66. Notice to Proceed**

- A. A written notice provided by CMHA authorizing the Contractor to proceed with the Work and establishing the date(s) for commencement and completion of the Work.

**23.1.67. ORC**

- A. The Ohio Revised Code.

**23.1.68. Owner**

- A. The Cincinnati Metropolitan Housing Authority or its instrumentality or affiliate for whom the Project is being constructed.

**23.1.69. Owner's Project Requirements**

- A. A written document that details the functional requirements of the Project and the expectations of how it will be used and operated
- B. These include project goals, measureable performance criteria, cost considerations, benchmarks, success criteria, and supporting information.

**23.1.70. Partial Occupancy**

- A. The condition that occurs when CMHA occupies or uses a portion of the Project prior to Contract Completion, partial occupancy is approved by authorities having jurisdiction, and items of Work cannot be completed until a subsequent date.

**23.1.71. Person**

- A. An individual, corporation, business trust, estate, partnership, association, or other public or private entity.

**23.1.72. Phase**

- A. A separation in the Work of the Project by sequence or time intervals, which may include separate contractors for each Phase.

**23.1.73. Plan Holder**

- A. A prospective Bidder that received a set of Contract Documents prior to the bid opening.

**23.1.74. Product Data**

- A. Manufacturer's standard illustrations, schedules, diagrams, performance charts, instructions, and brochures that illustrate physical appearance, size, and other characteristics of materials and equipment.

**23.1.75. PHA**

- A. A Public Housing Authority which at all times shall mean the Cincinnati Metropolitan Housing Authority unless otherwise specified in the Contract Documents.

**23.1.76. Project**

- A. The entire project, whether construction or rehabilitation, the work for which is provided for in whole or in part under the Contract Documents.

**23.1.77. Project Manager**

- A. An employee of CMHA assigned to the Project and authorized to perform specific responsibilities.
- B. A Project Manager may also be referred to as a Construction Manager or Construction Contract Administrator.

**23.1.78. Project Record Documents**

- A. Electronic files and printed documents of all nature prepared by the A/E, which incorporate the information shown on the Contractor's As-Built Documents.
- B. They consist of:
  - i. The "Record Drawings";
  - ii. Certificate of Substantial Completion;
  - iii. Certificate of Contract Completion (as complete);
  - iv. Contractor's Warranty;
  - v. Manufacturers' Warrantees, certificate(s) of occupancy, approved shop drawings and other action submittals;
  - vi. Proposal Requests;
  - vii. Requests for Interpretation;
  - viii. Addenda;
  - ix. Change Orders;
  - x. Balancing Reports; and
  - xi. The final version of the approved Construction Progress Schedule

**23.1.79. Proposal**

- A. The offer of a Contractor to perform the Work set forth in a Proposal Request.

**23.1.80. Provide**

- A. Furnish and install, complete and ready for intended use.

**23.1.81. Punch List**

- A. A document listing items of Work requiring correction or completion by the Contractor as a condition precedent to Contract Completion.

**23.1.82. Record Drawings**

- A. Synonymous to As-Build Drawings; and,
- B. The Drawings, which have been revised by the A/E to show the changes made during the construction process, conformed to represent the Work as executed by the Contractor.

**23.1.83. Request for Interpretation/Information (RFI)**



- A. A written request to CMHA or the A/E seeking an interpretation or clarification of the Contract Documents.

**23.1.84. Samples**

- A. Physical examples, color selection items, field samples, and mock-ups furnished by the Contractor to illustrate functional and aesthetic characteristics of products, materials, equipment, or workmanship and establish criteria by which the Work shall be judged.

**23.1.85. Schedule of Values**

- A. A full, accurate, and detailed statement furnished by the Contractor reflecting a defined breakdown of the Contract Sum.

**23.1.86. Separate Consultant**

- A. A Person engaged by CMHA to provide Project-related professional services other than the services under this Contract.
- B. The term includes the Separate Consultant's authorized representatives, successors, assigns, and sub-consultants regardless of tier.

**23.1.87. Separate Contract**

- A. The contract between CMHA and a Separate Consultant or a Separate Contractor.

**23.1.88. Separate Contractor**

- A. A Person under contract CMHA to provide Project related work other than the Work under this Contract.
- B. The term includes the Separate Contractor's authorized representatives, successors, assigns, and subcontractors regardless of tier.

**23.1.89. Shop Drawings**

- A. Drawings, diagrams, illustrations, and schedules specifically prepared for the Project provided by the Contractor or a Subcontractor to illustrate some portion of the Work.
- B. Shop Drawings are not Contract Documents.
- C. Shop Drawings on equipment shall include a written statement from the manufacturer of the equipment certifying the equipment is in compliance with the Contract Documents.

**23.1.90. Site**

- A. The location designated for the Project.

**23.1.91. Specifications**

- A. The written description of the technical requirements for construction and includes the criteria and tests for determining whether the requirements are met.

**23.1.92. Stage**

- A. A distinct period in the life cycle of a facility from concept through construction, to use and deconstruction or demolition.
- B. Typical Stages include Program Verification, Schematic Design, Design Development, Construction Documents, Bidding and Award stages; and the Construction, which includes Construction and Closeout activities.

**23.1.93. Subcontract**

- A. Any contract or agreement between the Contractor and a Subcontractor for performance of a portion of the Work.

**23.1.94. Subcontract Form**

- A. The Subcontract Form prescribed CMHA and required for use by Contractor when engaging Subcontractors.

**23.1.95. Subcontractor**

- A. A Person who undertakes to perform any part of the Work on the Project under a contract with a Contractor or with any Person other than the State, including all such Persons in any tier.
- B. The term "Subcontractor" includes Material Suppliers, but does not include any Separate Contractor unless expressly assigned in writing to the Contractor by CMHA and accepted by the Contractor.

**23.1.96. Supplementary Conditions**

- A. Amendments to the CMHA Construction Contract General Terms and Conditions, issued as a separate document, prescribed by CMHA, which describes conditions of the Contract unique to a particular Project, which may include:

- i. Provisions regarding the assignment of responsibility for refuse removal;
  - ii. Safety and security precautions and programs;
  - iii. Temporary Project facilities and utilities;
  - iv. Weather and fire protection;
  - v. Scaffolding and equipment;
  - vi. Materials and services to be used commonly by the Contractor and Subcontractors and requiring the Contractor to provide assistance in the utilization of any applicable equipment system;
  - vii. Preparation of operation and maintenance manuals; and
  - viii. Training of CMHA personnel for operation and maintenance of the Project
- B. The CMHA Construction Contract General Terms and Conditions shall not be superseded or amended by Drawings and Specifications, unless so provided in Supplementary Conditions.

**23.1.97. Surety**

- A. A Person providing a Bid Guaranty or a Bond to a Bidder or a Contractor, as applicable, to indemnify CMHA against all direct and consequential damages suffered by failure of the Bidder to execute the Contract, or of the Contractor to perform the Contract and to pay all lawful claims of Subcontractors, Material Suppliers and laborers, as applicable.

**23.1.98. Substantial Completion**

- A. The stage in the progress of the Work when the Work (or designated portion of the Work for which CMHA has agreed to take Partial Occupancy) is sufficiently complete in accordance with the Contract that CMHA can utilize the Work for its intended use, as determined by CMHA.
- B. The issuance of a certificate of occupancy or partial certificate of occupancy (if applicable) is a condition precedent to the achievement of Substantial Completion.

**23.1.99. Substitution**

- A. An article, device, material, equipment, form of construction, or other item, proposed by a prospective Bidder prior to the bid opening and approved by the A/E by Addendum, for incorporation or use in the Work as being functionally and qualitatively equivalent to essential attributes of a Basis of Design or Acceptable Component specified in the proposed Contract Documents.

**23.1.100. Unit Price**

- A. The cost of providing a unit of Work including labor, materials, services, and associated expenses.

**23.1.101. Work**

- A. The labor, materials, workmanship, manufacture or fabrication of components, equipment, and services, individually or collectively which are required by the Contract Documents, to be performed, installed, or provided by the Contractor for the Project.
- B. The furnishing of all material, labor, detailing, layout, supplies, plants, tools, scaffolding, transportation, temporary construction, superintendence, demolition, and all other services, facilities and items reasonably necessary for the full and proper performance and completion of the requirements of the Project as set forth in the Contract Documents, and items reasonably inferable therefrom and consistent therewith for the proper execution and completion of the construction and other services required by the Contract Documents, whether provided or to be provided by the Contractor or a Subcontractor, or any other entity for whom the Contractor is responsible, and whether or not performed or located on or off of the Site.

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# ECS Midwest, LLC

Geotechnical Engineering Report

## Proposed Parking Development for Marquette Manor Facility

1999 Sutter Avenue  
Cincinnati, Hamilton County, Ohio 45225

ECS Project No. 66:1493

August 28, 2024





August 28, 2024

Mr. Steve Jennings  
**LDA Architects, Inc.**  
5000 Euclid Avenue, Suite 104  
Cleveland, Ohio 44103  
[steve@ldaarchitecture.com](mailto:steve@ldaarchitecture.com)

ECS Project No. 66:1493

Reference: **Revised** Geotechnical Engineering Report  
**Proposed Parking Development for Marquette Manor Facility**  
1999 Sutter Avenue  
Cincinnati, Hamilton County, Ohio 45225

Dear Mr. Jennings:

ECS Midwest, LLC (ECS) has completed the subsurface exploration, laboratory testing, and geotechnical engineering analyses for the above-referenced project. Our services were performed in general accordance with our agreed scope of work. This report presents our understanding of the geotechnical aspects of the project along with the results of the field exploration and laboratory testing conducted, and our design and construction recommendations.

It has been our pleasure to be of service to LDA Architects, Inc. during the design phase of this project. We would appreciate the opportunity to remain involved during the continuation of the design phase, and we would like to provide our services during construction phase operations as well to verify subsurface conditions determined for this report. Should you have any questions concerning the information contained in this report, or if we can be of further assistance to you, please contact us.

Respectfully submitted,

**ECS Midwest, LLC**

**Candace J. Lynn, E.I.**  
Project Manager  
[clynn@ecslimited.com](mailto:clynn@ecslimited.com)



**Halis M. Ider, P.E.**  
Principal Engineer  
[hider@ecslimited.com](mailto:hider@ecslimited.com)

66-1493 Marquette Manor Parking Development

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### APPENDICES

#### **Appendix A – Drawings & Reports**

- Site Location Diagram
- Boring Location Plan
- Subsurface Soil Profile

#### **Appendix B – Field Operations**

- Reference Notes for Boring Logs
- Reference Notes for Rock Cores
- Subsurface Exploration Procedure: Standard Penetration Testing (SPT)
- Boring Logs

#### **Appendix C – Supplemental Report Information**

- Important Information about This Geotechnical-Engineering Report

## EXECUTIVE SUMMARY

The following summarizes the main findings of the exploration, particularly those that may have a cost impact on the planned development. Further, our principal recommendations are summarized. Information gleaned from the Executive Summary should not be utilized in lieu of reading the entire geotechnical report.

- The geotechnical subsurface exploration at the site involved five standard penetration test (SPT) borings, each extending to a depth of 7 to 10 feet below the ground surface. The borings revealed a generalized soil profile consisting of 2 to 3 inches of topsoil overlying fill material, glacial till, residual soils, and bedrock. The fill and undisturbed natural soils were firm to hard in consistency. In three borings (B-02 through B-04), buried pieces of concrete or concrete slabs were encountered approximately 6 to 7 feet below the ground surface, believed to be remnants of underground structures from previous buildings on the site. The borings remained dry at the depths penetrated.
- It is anticipated that the existing fill soils can remain in place beneath pavements, provided they contain no more than 5 percent organic content and do not exhibit excessive rutting or deflections greater than 1 inch during proofrolling operations. If the exposed subgrade consists of highly frost-susceptible soils, such as silt, consideration should be given to excavating below the proposed subgrade levels to a depth of 3 feet below the proposed subgrade level.

## 1.0 INTRODUCTION

The purpose of this study was to provide geotechnical information for the design of new pavements for the proposed parking expansion. The recommendations developed for this report are based on project information supplied by LDA Architects, Inc.

Our services were provided in accordance with ECS Proposal No. 66:2031-GP, dated August 1, 2024, as authorized by Mr. Steve Jennings of LDA Architects, Inc. on August 5, 2024, which includes the Terms and Conditions of Service outlined within our Proposal.

This report contains the procedures and results of our subsurface exploration and laboratory testing programs, review of existing site conditions, engineering analyses, and recommendations for the design and construction of the project.

The report includes the following items:

- A brief review and description of our field and laboratory test procedures and the results of the testing conducted.
- A review of surface topographical features and site conditions.
- A review of area and site geologic conditions.
- A review of subsurface soil stratigraphy with pertinent physical properties.
- Records of the field exploration (test boring logs) prepared in accordance with the standard practice for geotechnical engineering.
- Recommendations for site preparation and construction of compacted fills, including an evaluation of on-site soils for use as compacted fills and identification of potentially unsuitable soils and/or soils exhibiting excessive moisture at the time of sampling.
- An evaluation of the on-site soil characteristics encountered in the soil borings and suitability of the on-site materials for reuse as engineered fill to support pavements, including compaction requirements and suitable material guidelines.
- General recommendations for pavement design including a recommended design CBR value.
- Evaluation and recommendations relative to groundwater control.



## 2.0 PROJECT INFORMATION

The following information explains our understanding of the planned development. This understanding is based on our review of the following documents provided by LDA Architects, Inc.:

- An overlay site plan showing the footprint of the proposed parking development area on a Google image provided via email on July 29, 2024.
- A partial site plan detailing the location of the proposed parking development, including an overlay of a demolished building and a description of the proposed development, was also provided with the email above.

### 2.1 PROJECT LOCATION AND SITE HISTORY

The project site is located southwest of Sutter Avenue, approximately 320 feet south of its intersection with Boltwood Court in Cincinnati, Hamilton County, Ohio. The site covers roughly 1 acre and is primarily an open field south of Marquette Manor, a 15-story assisted living facility. The ground surface consists of grass cover with a few trees. The site location is outlined in red in the figure below and on the Site Location Diagram included in Appendix A:



Site Location Map

ECS reviewed a topographic map from the Cincinnati Area Geographic Information System (CAGIS) portal. This map shows that the existing grades in the proposed development area slope downward toward the northwest, with elevations ranging from approximately 790 to 786 feet above mean sea level (AMSL).

Additionally, there is a steep slope approximately 40 feet west and northwest of the proposed development, with a gradient of about 2 to 4 horizontals to 1 vertical. This slope descends toward a drainage valley extending in a northeast-southwest direction, with an elevation difference of about 35 to 75 feet between the crest and the toe near the proposed parking area.

ECS also reviewed a 1914 USGS Topographic Map of the region, indicating that the area east of the proposed parking development was once a ridgetop with preexisting grades near elevations of 800 feet AMSL. It is possible that cuts of up to 20 feet deep were made in or near the proposed development area to achieve the current grades.

A review of aerial photographs from 1985 to the present reveals that the area of the proposed development previously contained buildings with footprints ranging from approximately 2,100 to 2,600 square feet in plan. The approximate locations of these structures are shown on the attached Boring Location plan. It is unclear if these preexisting structures had basements or if the underground portions were fully removed and properly backfilled with engineered fill. There is no documentation regarding the earthwork activities associated with the demolition and backfilling of these structures to attain the present grades in the proposed development area.

## **2.2 PROPOSED CONSTRUCTION**

Based on the project information provided by LDA Architects, Inc., the proposed development will include the construction of a 1-acre parking expansion for the Marquette Manor facility.

ECS understands the following construction related details.

- Proposed grading for the pavement improvements was not available at the time of this report. It is anticipated that a relatively minimum amount of earthwork ( $\pm 2$  feet of cut and fill operations) will be required to establish the proposed pavement subgrade elevations.
- ECS has been informed that the project's Civil Engineer has estimated an Equivalent Single Axle Load (ESAL) of 160,000 for the 20-year design life of both the rigid and flexible pavement areas.

***If our understanding of the proposed project is inaccurate or the design changes, please contact ECS immediately so we can review (and revise, if necessary) the recommendations provided herein.***

### 3.0 FIELD EXPLORATION AND LABORATORY TESTING

#### 3.1 FIELD EXPLORATION

ECS performed the field exploration with the objective to characterize the subsurface conditions in general geotechnical and geological terms, and to evaluate subsequent field and laboratory data to assist in the determination of geotechnical recommendations.

##### 3.1.1 Test Borings

Our field services included drilling five (5) soil borings to terminal depths of 7 ½ to 10 feet. Geotechnical exploration procedures employed by ECS are explained in Appendix B, including the insert titled Subsurface Exploration Procedure. The test boring locations were selected by ECS and were established in the field by ECS using a hand-held Global Positioning System (GPS) unit with sub-meter accuracy. The approximate locations are shown on the Boring Location Plan in Appendix A. The ground elevation at each boring location was estimated using the Cincinnati Area Geographic Information System (CAGIS). The actual elevations at the boring locations should be surveyed prior to final pavement design.

Frostline Utility Services was subcontracted by ECS to perform the drilling services using an all-terrain rig (ATV) and utilizing continuous flight hollow stem augers (HSA). Prior to drilling, ECS contacted the Ohio Utilities Protection Service (OUPS) to clear and mark underground utilities in the vicinity of the project site.

#### 3.2 SOIL SURVEY MAPPING

ECS performed a review of anticipated shallow soils within the project site using the Web Soil Survey from the United States Department of Agriculture (USDA) Natural Resources Conservation Service ([www.websoilsurvey.nrcs.usda.gov](http://www.websoilsurvey.nrcs.usda.gov)). Based on the survey, the surficial site soils are generally mapped as belonging to the map unit titled "Urban land-Udorthents complex, 0 to 12 percent slopes" (UrUXC). These soils occur on hills. The typical profile of the CrA map unit consists of flaggy silty clay loam and clay over weathered bedrock. These soils are well drained, classified as being Hydrologic Group D, and have a high potential for frost action. The UrUXC soil type is not considered a hydric soil. The risk of corrosion for materials in contact with UrUXC soils would generally be high for uncoated steel and low for concrete. The UrUXC map unit is mapped across the entire proposed development site as shown in the following Figure:





**Soil Map Unit Distribution**

### **3.3 SITE GEOLOGY**

Information from the Quaternary and Bedrock maps of Ohio, prepared by the Ohio Department of Natural Resources (ODNR), indicates that the surface soils at the subject site are primarily associated with dissected ground moraine deposits. These soils, predominantly clays and sandy clays, are of glacial origin. Based on geologic data from the ODNR Geology Interactive mapping, we estimate the upper boundary of the bedrock within the proposed development area to be at elevations between approximately 755 and 775 feet above mean sea level (amsl), indicating a relatively shallow depth of less than 30 feet. The bedrock's upper boundary slopes downward towards the south and east. Approximately 1,500 feet in these directions, the upper boundary of the bedrock is estimated to be around 600 feet amsl, which is over 150 feet below the ground surface.

### 3.4 SUBSURFACE CHARACTERIZATION

The bedrock in the Greater Cincinnati Area is typically subdivided into three general zones. The highly weathered zone is typically very soft, is brown in color and exhibits moisture content percentages. The split-spoon sampler can usually be driven a full 18 inches as part of the standard penetration test. The weathered zone is also typically very soft to soft, is olive brown to gray in color, and exhibits moisture content percentages in the high single digits or low teens. The split-spoon sampler usually cannot be driven a full 18 inches as part of the standard penetration test within the weathered zone. The slightly weathered to unweathered zone is typically soft to moderately hard, is gray in color, and exhibits moisture content percentages in the low to mid-single digits. The split spoon sampler usually cannot be driven more than 6 inches as part of the standard penetration tests.

Weathered shale bedrock was encountered in boring B-05 at a depth of approximately 5 feet (i.e., at approximate El. 783 feet amsl). Bedrock was not encountered by the remaining borings.

The following Table provides a generalized characterizations of the soil strata encountered by the soil borings. For more detailed information, please refer to the boring logs and subsurface profile in Appendix B.

GENERALIZED SUBSURFACE STRATIGRAPHY						
Approximate Depth Increment (ft.)	Elevation <sup>(1)</sup> (ft., MSL)	Stratum No.	Soil Description	Calibrated Penetrometer Resistance (tsf)	SPT <sup>(2)</sup> N-values (bpf)	Natural Moisture Content (%)
Surface	785 ¾ – 788	N/A	2 to 3-inch-thick TOPSOIL (All Borings) [Borings B-01 through B-05]	N/A	N/A	N/A
3 ½ - 7	780 - 783	I	<b>Fill or Possible Fill:</b> Firm to Hard LEAN CLAY (CL) [Borings B-01 through B-05]	1 ¾ - 4 ½	7 – 27	13 – 23
7 ½	778 ½	II	<b>Glacial Till:</b> Firm to Hard Lean-to FAT [Boring B-01 – B-04]	1 ¾ – 4 ½	8 - 16	20 - 33
10 (end of boring)	777	III	<b>Residuum:</b> Firm to Very Stiff LEAN CLAY [Boring B-02]	3	6 - 18	29 - 33
7 (end of boring)	781	IV	<b>Bedrock:</b> Weathered SHALE and Thinly Bedded LIMESTONE [Boring B-05]	N/A	50/5"	15

Notes:

- (1) Please note that the ground surface elevations at the boring locations were not surveyed by a licensed surveyor. These elevations are approximate based on CAGIS; therefore, elevation ranges are approximate within several feet.
- (2) Standard Penetration Testing

A graphical presentation of the subsurface conditions is shown on the Subsurface Soil Profile Diagram included in Appendix A.

### 3.5 GROUNDWATER OBSERVATIONS

The measured free ground water levels at the time of drilling activities are reported on the boring logs in Appendix B. Groundwater was not observed in the borings during or upon completion of drilling. Based

upon our interpretation of the test boring observations, it is our interpretation that the long-term groundwater table within the project site is located below the depths explored by the borings.

Variations in the long-term water table elevation can occur due to changes in precipitation, evaporation, surface water runoff, construction activities, and other factors. The groundwater level may take days or weeks to stabilize in the boreholes. Perched water conditions may also develop and/or exist at shallower or variable depths seasonally, particularly within more permeable soil underlain by less permeable soil, within existing fill, within existing utility and structure backfill, and within fissured soil.

### **3.6 LABORATORY TESTING**

The laboratory testing consisted of selected tests performed on samples obtained during our field exploration operations. Moisture content testing per ASTM D2216 was performed on the split-spoon samples obtained from the borings. In addition, the unconfined compressive strength of the split-spoon samples was estimated using a calibrated handheld penetrometer.

Each sample was visually classified based on texture and plasticity in accordance with ASTM D2488 Standard Practice for Description and Identification of Soils (Visual-Manual Procedures) and including USCS classification symbols. After classification, the samples were grouped in the major zones noted on the boring logs in Appendix B. The group symbols for each soil type are indicated in parentheses along with the soil descriptions. The stratification lines between strata on the logs are approximate; in situ, the transitions may be gradual.

## 4.0 DESIGN RECOMMENDATIONS

### 4.1 PAVEMENTS

**Subgrade Characteristics:** Based on the results of our soil borings, it appears that the pavement subgrades in cut areas will consist mainly of LEAN CLAY (CL) and FAT CLAY (CH) which are generally considered poor subgrade materials during prolonged contact with water. A design CBR value of 3, the anticipated project traffic loads, a 20-year design service life, and regional climatic conditions were used to develop the recommended minimum pavement sections. We recommend that the pavement subgrade be prepared in accordance with the Subgrade Preparation and Earthwork Operations sections of this report.

**Pavement Sections:** The recommended minimum pavement sections listed in the following Table are based on the anticipated usage at the project site and a 20-year design service life, but were not developed based on specific traffic patterns, loading and resiliency factors, as those parameters were not provided by the design team. ***If the anticipated traffic will exceed that estimated in the Proposed Construction section, ECS should be contacted for revised pavement design recommendations; otherwise, increased pavement maintenance and a shortened pavement life should be expected.***

The assumption for the light-duty pavement section is that typical traffic loads will be limited to standard automobiles and does not account for more heavily loaded vehicles (i.e., multiple axle trucks) and should be used for parking lanes. Pavement materials and construction should be in accordance with the Guidelines for AASHTO Pavement Design and the Ohio Department of Transportation (ODOT) Construction and Material Specifications.

MINIMUM PAVEMENT SECTION RECOMMENDATIONS		
Pavement Material	Compacted Material Thicknesses (Inches)	
	Flexible Pavement	Rigid Pavement
ODOT Item 452 Non-Reinforced Concrete Pavement, Class QC1	--	6
ODOT Item 441 Surface Course, Type 1, PG64-22	2	--
ODOT Item 301 Asphalt Concrete Base, PG64-22	3	--
ODOT Item 304 Aggregate Base	8	6
Total Pavement Section Thickness	13	12

Notes:

To aid in promoting subsurface drainage, the bottom 3 to 4 inches of the recommended ODOT No. 304 may be replaced with a crushed AASHTO No. 57 stone.

The pavement sections in the Table above do not provide an allowance for construction traffic conditions or traffic conditions in excess of typical store development traffic. If pavements will be constructed early during site development to accommodate construction traffic, consideration should be given to the construction of designated haul roads, where thickened pavement sections can be provided to accommodate the construction traffic, as well as the future in-service traffic. ECS can provide additional design assistance with pavement sections for haul roads if requested.

We recommend the crushed granular base course be compacted to at least 98 percent of the maximum dry density obtained in accordance with ASTM D698, Standard Proctor Method. The hot mix asphalt should be compacted to a minimum of 93 percent of the maximum theoretical density value.

**Rigid Concrete Pavements:** We recommend a rigid pavement section be used in frequent traffic areas such as where trucks frequently turn, delivery areas, trash enclosure pads, and points of ingress or egress. The Portland cement concrete pavement section should consist of air-entrained Portland cement concrete having a minimum 28-day compressive strength of 4,000 psi. The rigid pavement section should be provided with construction joints at appropriate intervals per PCA requirements. The construction joints should be reinforced with dowels to transfer loads across the joints.

**Pavement Drainage:** An important consideration with the design and construction of pavements is surface and subsurface drainage. Where standing water develops, either on the pavement surface or within the base course layer, softening of the subgrade and other problems related to the deterioration of the pavement can be expected. Based on our estimated groundwater level, we consider surface water infiltration would be the main source of water to be considered for pavement design on this project.

The final pavement surface should be shaped or crowned to properly direct surface water to suitable on or off-site storm water drainage infrastructure. The clay pavement subgrade must be properly sloped to avoid dips or pockets where water may become trapped. Dips in the silty clay subgrade could result in a “bathtub” effect, which may trap water and potentially soften the subgrade. The subgrade in areas requiring undercut and backfill with granular soils are recommended to be graded to drain toward a drain tile. The drain tile should be sloped a minimum of ½ to 1 percent to discharge to nearby storm sewers, drainage ditches or other appropriate drainage facilities. Edge drains should be installed where site grades slope toward the pavement edge to reduce the potential for water to enter the base course layer. Slope edge drains to the nearest appropriate drainage facility. Water that accumulates and ponds on the subgrade surface can lead to deterioration of the subgrade soils, reduction of the base course support characteristics and pavement heave. Good drainage should help reduce the possibility of the subgrade materials being wet over a long period of time.

To reduce the potential for shallow perched water to develop in areas of the site, “stub” or “finger” drains should be installed around catch basins and in other low-lying areas of the parking lot to reduce the accumulation of water above and within the subgrade soils and aggregate base. As an alternative to the use of stub or finger drains, perforate existing manholes and storm sewer inlets with 1-inch-diameter holes at 2-foot centers and wrap the manhole/inlet with a non-woven geotextile to reduce migration of material into the manhole/inlet. The holes could be placed at 90-degree intervals around the perimeter of the manhole, and the excavation around the manhole backfilled with free draining granular materials. The installation of pavement edge drains or trench drains should be considered to reduce the accumulation of water within the base course and on the subgrade soils.

**Pavement Maintenance Considerations:** A sound maintenance program should be implemented to help maintain and enhance the performance of pavements and help attain the design service life. A preventative maintenance program should be started early in the pavement life to be effective. The research-supported industry standard indicates that preventative maintenance should typically begin within 2 to 5 years of the placement of pavement. Failure to perform preventative maintenance will reduce the service life of the pavement and increase the costs for corrective maintenance and full



pavement rehabilitation. Seal joints and cracks with elastomeric caulk in a timely manner to help reduce water infiltration through the pavement section into the base course layer, which may result in softening of the subgrade and deterioration of the pavement. Observe pavements for distresses, such as cracks, depressions, and poor drainage, at least twice a year, typically once in the spring and once in the fall.

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## 5.0 SITE CONSTRUCTION RECOMMENDATIONS

### 5.1 SUBGRADE PREPARATION

#### 5.1.1 Existing Utilities

All existing utilities must be located. For utilities not reused, they should be capped-off and removed, or properly abandoned in-place in accordance with local codes and ordinances. Excavations for utilities to be removed in the influence zone of new construction must be backfilled with engineered fill. Grading operations must be done carefully so that existing utilities are not damaged or disturbed. Utility invert elevations, depths, and sizes must be checked relative to the planned foundation elevations to determine what specific concerns are present.

#### 5.1.2 Stripping and Initial Site Preparation

The subgrade preparation should consist of stripping all vegetation, rootmat, topsoil, and other soft or unsuitable materials from the 5-foot expanded pavement limits and to 5 feet beyond the toe of engineered fills. The topsoil observed in the soil borings extended to depths of 2 to 3 inches. ECS should be called on to verify that topsoil and unsuitable surficial materials have been completely removed prior to the placement of Engineered Fill or construction of structures.

#### 5.1.3 Special Subgrade Preparations – Pavements

Pavement strength primarily depends on the characteristics of the subgrade soils, subbase fill, base course, and concrete or bituminous layers. In pavement design, the total thickness generally includes the concrete or bituminous layers, the base course, and the subbase fill. The site conditions are generally suitable for the proposed pavement construction. However, concerns arise due to the presence of existing fill soils containing foreign and deleterious materials in some localized areas and frost-susceptible soils encountered in the borings, which could affect pavement performance.

**Existing Fill Soils:** The fill soils found beneath the existing 2- to 3-inch-thick topsoil in all borings raise concerns regarding the performance of the pavement system. While the fill soils encountered are generally clean, specific issues were noted. In Borings B-01 through B-03, the driller's logs indicate the presence of concrete at depths of approximately 6 to 7 feet below the ground surface, suggesting remnants from below-ground structures of previous buildings. These buried concrete slabs may remain if they are located at least 3 feet below the ground surface. However, any subsurface structures found within 3 feet of the subgrade level of the pavement should be removed from the proposed development area.

Based on visual observations, the deleterious material (e.g., wood and other organics) within the fill soils is estimated to be less than 3 percent. The owner should be aware of the increased risk of reduced pavement performance associated with constructing pavements on undocumented fill. This risk is due to the higher potential for variable density in these soils, further exacerbated by organic content exceeding 5 percent. However, it is important to note that natural soil variability introduces a baseline risk for reduced pavement performance on any construction site.

Based on standard penetration N-values, ECS considers the risk for reduced pavement performance at this site to be generally moderate to high. However, this risk could be mitigated to a low level if the fill contains less than 5 percent organic content and proofrolling does not reveal rutting or deflection

exceeding 1 inch. Considering the owner's assumed acceptable level of risk, we recommend removing any existing fill containing more than 5 percent organic content, or that fails to meet proofrolling requirements within 2 feet of the finished pavement grade. The removed material should be replaced with compacted engineered fill in accordance with the **Earthwork Operations** section of this report.

**Frost Susceptible Soils:** The frost susceptible clay and silt soils encountered in the borings provide another concern for the pavement system. ECS wishes to note, a risk for reduced pavement performance exists with the construction of pavements on frost susceptible soil. The reduced pavement performance may occur because of potential detrimental frost heaving and spring thaw weakening. The risk associated with frost susceptible soils can be reduced by removal of all frost susceptible soils within 3 feet of the finished pavement grade. In our opinion, the risk at this site related to the frost susceptible soils would generally be moderate. However, the risk would be high in areas where highly frost susceptible silt soil is present within 3 feet of the finished pavement grade.

**Summary:** Based on our assumption of the owner's acceptable risk level, we recommend the following:

1. Remove all existing low strength soils and existing fill soils from within 2 feet of the finished pavement grade unless it contains less than 5 percent organic content and proof-rolling observations do not indicate rutting or deflection greater than 1 inch.
2. All over-excavated material should be replaced with compacted engineered fill in accordance with the Earthwork Operations section of this report.
3. If the owner is willing to accept a moderate risk for reduced pavement performance, then we anticipate a majority of the frost susceptible soils will remain in place below pavements. However, we recommend removing all highly frost susceptible silt soils from within 3 feet of the finished pavement grade. If the owner is only willing to accept a low risk for reduced pavement performance, then we recommend removing all frost susceptible soils from within 3 feet of the finished pavement grade.

#### **5.1.4 Proofrolling**

Prior to fill placement or other construction on subgrades, the subgrades should be evaluated by an ECS field technician. The exposed subgrade should be thoroughly proofrolled with construction equipment having a minimum axle load of 10 tons (e.g., fully loaded tandem-axle dump truck). Proofrolling should be traversed in two perpendicular directions with overlapping passes of the vehicle under the observation of an ECS technician. This procedure is intended to assist in identifying any localized yielding materials. The axis of all utility trenches which are located below roadways must be succinctly targeted by the proofrolls to evaluate performance of the subgrade prior to paving.

Where proofrolling identifies areas that are unstable or “pumping” subgrade those areas should be repaired prior to the placement of any subsequent Engineered Fill or other construction materials. Methods of stabilization include undercutting, moisture conditioning, or chemical stabilization. The situation should be discussed with ECS to determine the appropriate procedure. Test pits may be excavated to explore the shallow subsurface materials to help in determining the cause of the observed unstable materials, and to assist in the evaluation of appropriate remedial actions to stabilize the subgrade.

Seasonal reduction of the near surface soil strength can occur during wet times of the year (such as during the spring and fall months) or immediately following extended periods of rain. This may result in additional

unstable or pumping subgrade areas. High moisture content clay materials may be encountered near the ground surface at some localized areas. These materials may not pass a proofroll and may need to be undercut or repaired. Some undercutting or repair of unstable subgrade soils should be anticipated during slab and pavement subgrade preparation. The actual quantity of the subgrade undercut, or stabilization should be determined at the time of construction.

The method to be chosen to repair unstable subgrades to establish a suitable support condition may be influenced by several factors such as weather and schedule, as well as the area, depth, and nature of the unstable subgrade soils. Depending on these and other factors, subgrade repair methods may include:

**Scarification and Compaction:** Soils can be scarified, moisture conditioned (i.e., dried or wetted) to within a narrow range of the material's optimum moisture content and compacted. Scarification and compaction are generally most applicable where very shallow unstable conditions are encountered and at times when the soil can be properly dried or wetted to within a narrow range of the material's optimum moisture content.

**Undercut and Replacement:** We recommend soft or yielding soils be evaluated in approximately 6- to 12-inch intervals to help limit the required volume of undercuts. If soft or yielding soils are identified, the contractor should remove only 6 to 12 inches of material at a time in the subject area and then proofroll/evaluate the undercut subgrade to determine if additional undercut is needed. This may take more time but could potentially reduce the removal of more soil than necessary. Use of a geogrid could also be considered to reduce undercut depths. A geogrid, if used, should be placed after underground work, such as utility construction, is complete. Do not operate equipment on the geogrid until after 1 foot of engineered fill is placed above it. Depending on the conditions at the time of repair, use of an aggregate engineered fill, such as crushed stone, crushed concrete, or gravel, may be needed.

**Chemical Modification:** Alternatively, if these soils cannot be stabilized by conventional methods, chemical modification of the subgrade soils, such as with lime kiln dust, cement, cement kiln dust, or other materials, may be utilized to reduce the moisture content and/or provide additional stabilization. An experienced pre-qualified contractor that has successfully chemically modified similar-sized projects with similar soil conditions is recommended to be used. The soil modification procedure, such as determination of the type and quantity of additive, and mixing and curing procedures, should be evaluated before implementation. This evaluation may include testing the soil for pH, resistivity, sulphates, and chloride to check if an adverse chemical reaction could occur. The contractor should be required to minimize dusting or implement dust control measures. For preliminary estimating purposes, the approximate incorporation rate (based on dry weight of soil) is 6 to 7 percent for hydrated lime or lime by-products, and 5 to 7 percent for Portland cement. Typically, the percentage needed is less for hydrated lime than other lime byproducts because the available calcium oxide content of lime by-products tends to be lower. Insufficient mellowing of modified soils could lead to heaving after placement. Subgrade modification can result in the creation of an 'aquiclude' layer which will allow water to pond above the stabilized surface within the base course. Such water, if not drained properly, can freeze in cold weather potentially resulting in significant heave of the pavement. Alterations to the pavement sections to include additional drainage, such as an open-graded drainage aggregate layer, may be needed if a chemically modified subgrade is used. A minimum stabilization depth of 12 inches must be used.

### 5.1.5 Site Temporary Dewatering

Groundwater observations are discussed in the **Groundwater Observations** section of this report. The static groundwater for this site is located deeper than the extent of the present subsurface exploration. However, isolated perched water may be encountered in localized areas, and perched water seepage may be encountered during construction. Surface runoff may also introduce water into the project site. The Contractor should be prepared to remove any accumulated water before placing new engineered fill and concrete. Using sump pumps and trenches to direct water should be adequate to maintain a dry excavation. The sump pits should ideally be located around the perimeter of the excavation.

## 5.2 EARTHWORK OPERATIONS

### 5.2.1 Engineered Fill

Prior to placement of Engineered Fill, representative bulk samples (about 50 pounds) of on-site and/or off-site borrow should be submitted to ECS for laboratory testing, which will typically include Atterberg limits, natural moisture content, grain-size distribution, and moisture-density relationships (i.e., Proctors) for compaction. Imported materials should be tested prior to being hauled to the site to determine if they meet project specifications. Alternatively, Proctor data from other accredited laboratories can be submitted if the test results are within the last 90 days.

**Satisfactory Engineered Fill Materials:** Materials adequate for use as Engineered Fill should consist of inorganic soils. These materials should meet the engineering properties and compaction requirements detailed in the following Tables.

ENGINEERED FILL INDEX PROPERTIES	
Subject	Property
Liquid Limit	Less than 40
Plasticity Index	Less than 20
Maximum Particle Size	4 inches
Maximum Organic Content	5% by dry weight

ENGINEERED FILL COMPACTION REQUIREMENTS	
Subject	Requirement
Compaction Standard	Standard Proctor, ASTM D698
Required Compaction	98% of Maximum Dry Density
Moisture Content	-2 to +3 % points of the soil's Optimum Moisture
Loose Thickness	8 inches prior to compaction

**Unsatisfactory Materials:** Unsatisfactory engineered fill materials, which do not satisfy the requirements for suitable materials, include topsoil and organic materials (PT, OH, OL), silt (ML), sandy silt (ML), elastic Silt (MH), and sandy silty clay (CL/ML). ECS does not recommend the use of high plasticity soils such as FAT CLAY (CH) for use as Engineered Fill without chemical stabilization using a material such as lime kiln dust (LKD). Topsoil is not recommended to be used as engineered fill but may be suitable for use within

future landscape areas. A landscape architect should approve any materials proposed for use in future landscape areas.

Pea gravel is not recommended to be used as engineered fill. Pea gravel has round/smooth characteristics, no fines and does not interlock when compacted, which makes it more susceptible to future movement and instability resulting in excessive and variable settlement.

**On-Site Borrow Suitability:** The on-site soil may be feasible to use as engineered fill but should be further evaluated and approved by ECS prior to its use. On-site soil used as engineered fill must not contain an adverse amount of organic matter, and must be free of frozen matter, deleterious materials, over-sized material (maximum 3-inch particle diameter), or chemicals that may result in the material being classified as “contaminated.” Some conditions at the time of construction, such as wet or freezing weather, may preclude the use of on-site soil, and it may be necessary to use an imported less moisture sensitive or less frost susceptible granular material. The soils must be compacted within a narrow range of the material’s optimum moisture content. The soil should not be compacted too dry as it may lose its apparent stability if it later becomes wet. The suitability of engineered fill materials should be checked by ECS prior to placement.

**Compaction:** Engineered Fill within the expanded pavement and embankment limits should be placed in maximum 8-inch loose lifts, moisture conditioned as necessary to within -2 and +3 % of the soil’s optimum moisture content and be compacted with suitable equipment to a dry density of at least 98% of the Standard Proctor maximum dry density (ASTM D698). Beyond these areas, compaction of at least 95% should be achieved. ECS should be called on to document that proper fill compaction has been achieved.

**Fill Compaction Control:** The expanded limits of the proposed construction areas should be well defined, including the limits of the fill zones for pavements and slopes, at the time of fill placement. Grade controls should be maintained throughout the filling operations. All filling operations should be observed on a full-time basis by a qualified representative of the construction testing laboratory to determine that the minimum compaction requirements are being achieved. Field density testing of fills will be performed at the frequencies shown in the following Table, but not less than 1 test per lift:

FREQUENCY OF COMPACTION TESTS IN FILL AREAS	
Location	Frequency of Tests
Pavement Areas	1 test per 10,000 sq. ft. per lift
Utility Trenches	1 test per 200 linear ft. per lift
Outparcels/SWM Facilities	1 test per 5,000 sq. ft. per lift
All Other Non-Critical Areas	1 test per 10,000 sq. ft. per lift

**Compaction Equipment:** Compaction equipment suitable for the soil type being compacted should be used to compact the subgrades and fill materials. Sheepsfoot compaction equipment should be suitable for the fine-grained soils (Clays and Silts). A vibratory steel drum roller should be used for compacting coarse-grained soils (Sands) as well as for sealing compacted surfaces.

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**Fill Placement Considerations:** Fill materials should not be placed on frozen soils, on frost-heaved soils, and/or on excessively wet soils. Borrow fill materials should not contain frozen materials at the time of placement, and all frozen or frost-heaved soils should be removed prior to placement of Engineered Fill or other fill soils and aggregates. Excessively wet soils or aggregates should be scarified, aerated, and moisture conditioned.

At the end of each workday, fill areas should be graded to facilitate drainage of any precipitation and the surface should be sealed by use of a smooth-drum roller to limit infiltration of surface water. During placement and compaction of new fill at the beginning of each workday, the Contractor may need to scarify existing subgrades to a depth on the order of 4 inches so that a weak plane will not be formed between the new fill and the existing subgrade soils.

Drying and compaction of wet soils is typically difficult during the cold, winter months. Accordingly, earthwork should be performed during the warmer, drier times of the year, if practical. Proper drainage should be maintained during the earthwork phases of construction to prevent ponding of water which tends to degrade subgrade soils. Alternatively, if these soils cannot be stabilized by conventional methods as previously discussed, additional modifications to the subgrade soils such as lime or cement stabilization may be utilized to adjust the moisture content. If lime kiln dust (LKD) or Portland cement are utilized to control moisture contents and/or for stabilization, Calciment® or regular Type 1 Portland cement can be used. The construction testing laboratory should evaluate proposed lime or cement soil modification procedures, such as quantity of additive and mixing and curing procedures before implementation. Admixture concentrations on the order of 5 to 7 percent by dry unit weight are typical for this type of soil. Also, sufficient water must be available in the soil to hydrate the admixture to achieve its optimal strength. The contractor should be required to minimize dusting or implement dust control measures.

Where fill materials will be placed to widen existing embankment fills, or placed up against sloping ground, the soil subgrade should be scarified, and the new fill benched or keyed into the existing material (see ODOT Construction and Material Specifications Section 203.05). Fill material should be placed in horizontal lifts. In confined areas such as utility trenches, portable compaction equipment and thin lifts of 3 inches to 4 inches may be required to achieve specified degrees of compaction.

We recommend that the grading contractor have equipment on site during earthwork for both drying and wetting fill soils. We do not anticipate significant problems in controlling moisture within the fill during dry weather, but moisture control may be difficult during winter months or extended periods of rain. The control of moisture content of higher plasticity soils is difficult when these soils become wet. Further, such soils are easily degraded by construction traffic when the moisture content is elevated.

### 5.3 UTILITY INSTALLATIONS

**Utility Subgrades:** The soils encountered in our exploration are expected to be generally suitable for support of utility pipes. The pipe subgrades should be observed and probed for stability by ECS. Any loose or unsuitable materials encountered should be removed and replaced with suitable compacted Engineered Fill, or pipe stone bedding material.

**Utility Backfilling:** The granular bedding material (often AASHTO No. 57 stone) should be at least 4 inches thick, but not less than that specified by the civil engineer's project drawings and specifications. We recommend that the bedding materials be placed up to the springline of the pipe. Fill placed for support

of the utilities, as well as backfill over the utilities, should satisfy the requirements for Engineered Fill and Fill Placement.

**Utility Excavation Dewatering:** Perched water may be encountered by utility excavations. It is expected that removal of perched water which seeps into excavations could be accomplished by pumping from sumps in the trench bottom and are backfilled with open graded bedding material.

#### 5.4 GENERAL CONSTRUCTION CONSIDERATIONS

**Construction Observation and Testing:** We recommend that all earthwork construction be observed and tested by ECS. If we are not consulted during this critical aspect of the subgrade and earthwork operations, ECS cannot be responsible for long term performance of the ground-supported construction.

**Subgrade Protection:** Measures should also be taken to limit site disturbance, especially from rubber-tired heavy construction equipment, and to control and remove surface water from development areas. It would be advisable to designate a haul road and construction staging area to limit the areas of disturbance and to prevent construction traffic from excessively degrading sensitive subgrade soils and existing pavement areas. Haul roads and construction staging areas could be covered with excess depths of aggregate to protect those subgrades. The aggregate can later be removed and used in pavement areas.

**Surface Drainage:** Surface drainage conditions should be properly maintained. Surface water should be directed away from the construction area, and the work area should be sloped away from the construction area at a gradient of 1 percent or greater to reduce the potential of ponding water and the subsequent saturation of the surface soils. At the end of each workday, the subgrade soils should be sealed by rolling the surface with a smooth drum roller to minimize infiltration of surface water.

**Excavation Safety:** All excavations and slopes should be made and maintained in accordance with OSHA excavation safety standards. The Contractor is solely responsible for designing and constructing stable, temporary excavations and slopes and should shore, slope, or bench the sides of the excavations and slopes as required to maintain stability of both the excavation sides and bottom. The Contractor's responsible person, as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the Contractor's safety procedures.

Contractors should be familiar with applicable OSHA codes to ensure that adequate protection of the excavations and trench walls is provided. We recommend construction excavation less than 20 feet should be sloped 1½H:1V or flatter. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations. ECS is providing this information solely as a service to our client. ECS is not assuming responsibility for construction site safety or the Contractor's activities; such responsibility is not being implied and should not be inferred.

**Erosion Control:** The surface soils may be erodible. Therefore, the Contractor should provide and maintain good site drainage during earthwork operations to maintain the integrity of the surface soils. All erosion and sedimentation controls should be in accordance with sound engineering practices and local requirements.



**Existing Fill Considerations:** Existing fill was encountered at some of the test boring locations. Unsuitable materials not identified by the borings may be buried beneath the site surface. Questionable material encountered is recommended to be evaluated by ECS to determine if removal and replacement with engineered fill is necessary. Alteration to the recommendations of this report may be needed, if conditions different than those noted on the test boring logs are revealed.

**Bidding/Estimating Considerations:** Contractors bidding or undertaking any work at the site should examine the results of the subsurface exploration, satisfy themselves as to the adequacy of the information for bidding and construction, make their own interpretation of the data, and consider the effect it may have on their cost proposal, construction techniques, schedule, and equipment capabilities. Furthermore, contractors should complete any additional fieldwork and investigation they deem necessary to properly prepare a cost proposal for the site work. Soil borings do not provide the same wide-scale view of the subsurface conditions that is obtained during site grading, excavation, or other aspects of earthwork construction. Additional scope may be required to obtain more detailed subsurface information needed for earthwork bid preparation, which could include test pits to better understand the lateral and vertical extents of the subsurface materials of concern such as existing undocumented fill. Even with this additional information, budget contingencies should be carried in construction to help cover potential variations in subsurface conditions.

## 6.0 CLOSING

ECS has prepared this report to guide the geotechnical-related design and construction aspects of the project. We performed these services in accordance with the standard of care expected of professionals in the industry performing similar services on projects of like size and complexity at this time in the region. No other representation expressed or implied, and no warranty or guarantee is included or intended in this report.

The description of the proposed project is based on information provided to ECS by LDA Architects, Inc. If any of this information is inaccurate or changes, either because of our interpretation of the documents provided or site or design changes that may occur later, ECS should be contacted so we can review our recommendations and provide additional or alternate recommendations that reflect the proposed construction.

We recommend that ECS review the project plans and specifications so we can confirm that those plans/specifications are in accordance with the recommendations of this geotechnical report.

Field observations, and quality assurance testing during earthwork installation are an extension of, and integral to, the geotechnical design. We recommend that ECS be retained to apply our expertise throughout the geotechnical phases of construction, and to provide consultation and recommendation should issues arise.

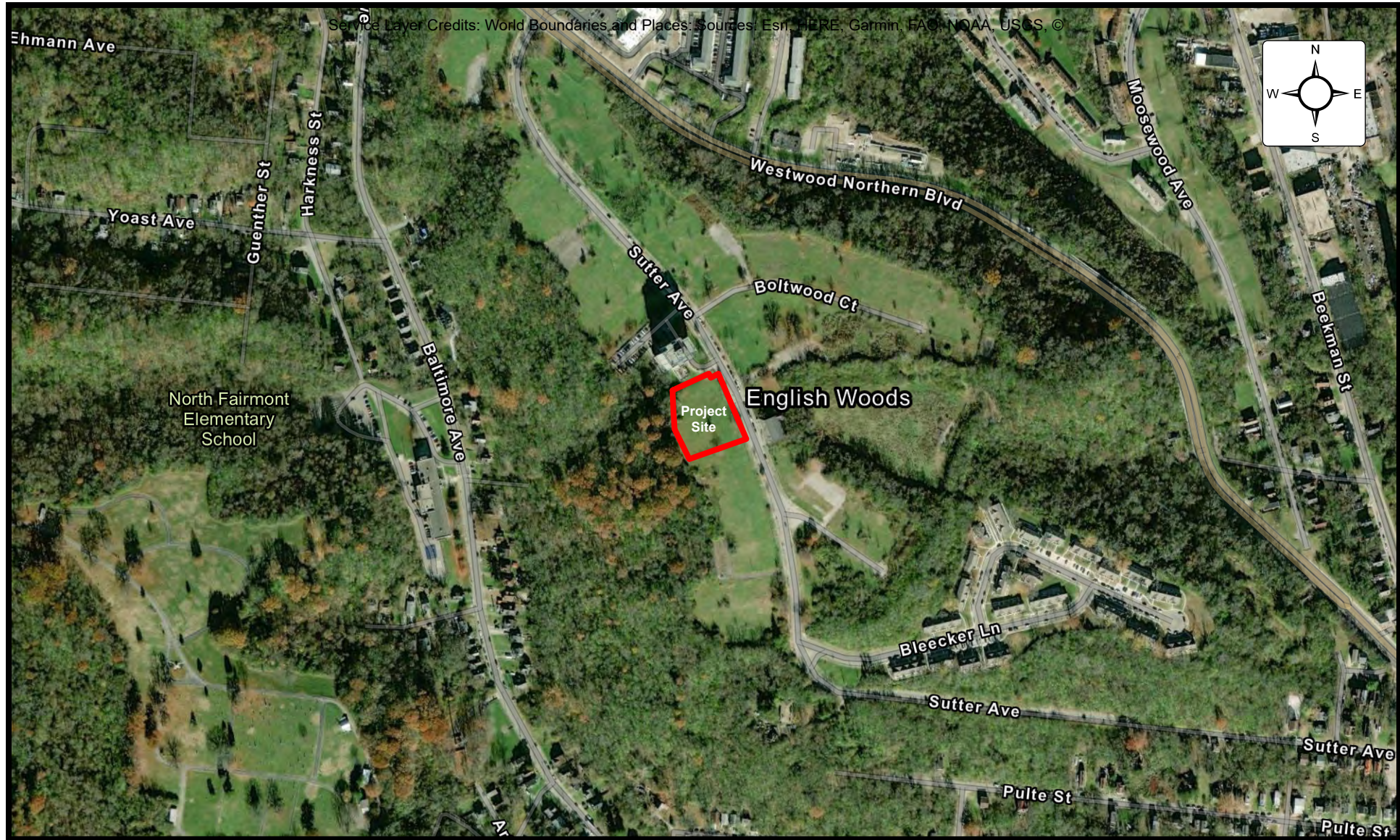
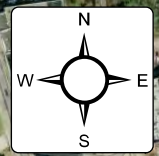
ECS is not responsible for the conclusions, opinions, or recommendations of others based on the data in this report.

## APPENDIX A – Diagrams

Site Location Diagram  
Boring Location Plan  
Subsurface Soil Profile



Service Layer Credits: World Boundaries and Places: Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, ©



# SITE LOCATION DIAGRAM





## Marquette Manor Parking Development

1999 Sutter Avenue, Cincinnati, Ohio  
LDA Architects Inc.

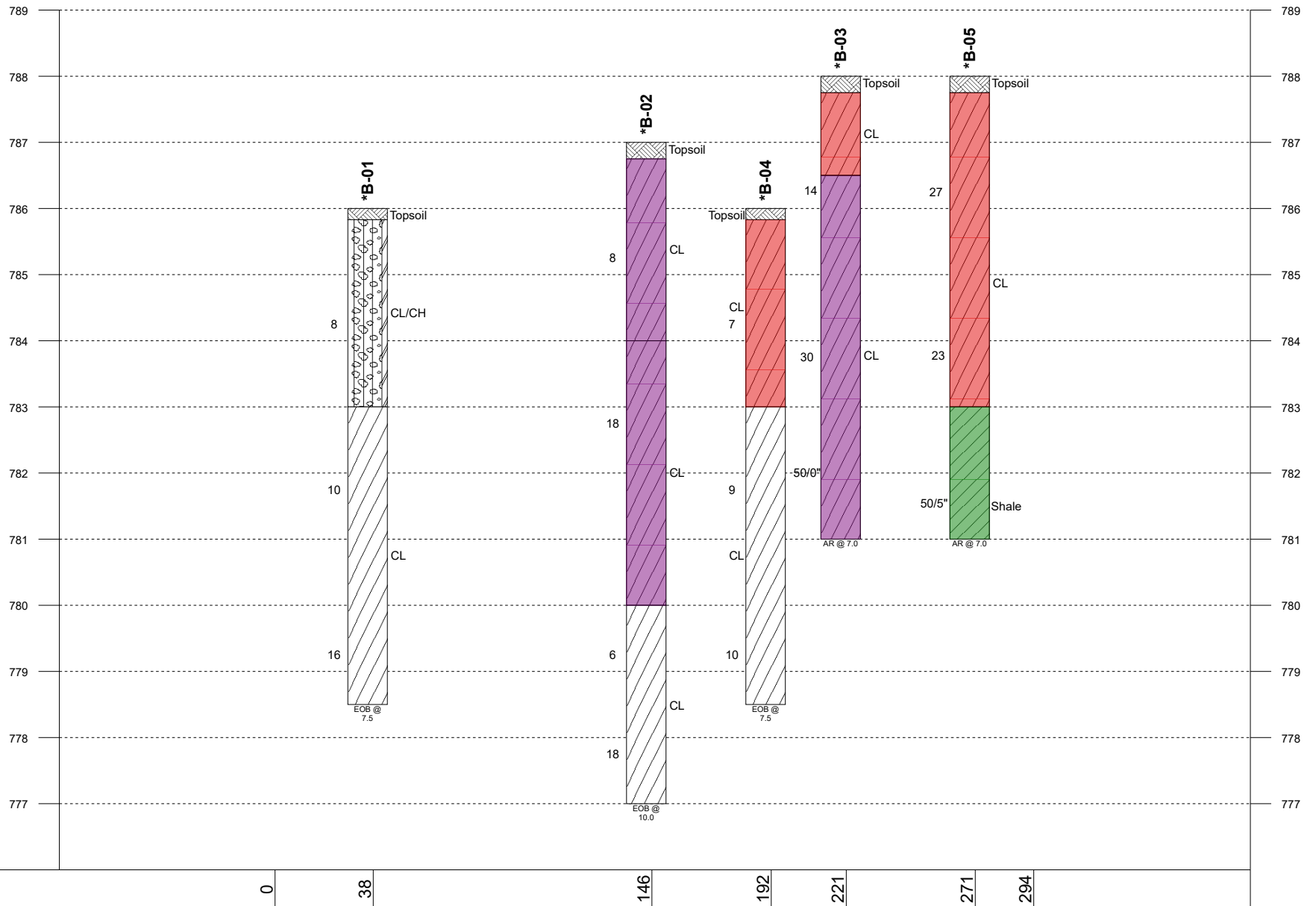
ENGINEER CLynn
SCALE 1" = 500'
PROJECT NO. 66:1493
SHEET 1 of 1
DATE 8/19/2024









	 Boring Locations	 Cross Section Location		<b>Boring Location Plan</b> <b>PROPOSED PARKING DEVELOPMENT, CINCINNATI, OH</b> <b>SUBSURFACE EXPLORATION AND</b> <b>GEOTECHNICAL ENGINEERING SERVICES</b> <b>CINCINNATI, HAMILTON COUNTY, OHIO</b>		<b>Engineer:</b> HMI/CJL
						<b>Scale:</b> 1" = 50'
						<b>Sheet No:</b> 1 of 1
						<b>Date:</b> August 19, 2024












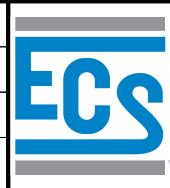
### Legend Key

-  Topsoil
-  Lean Clay
-  Lean to Fat Clay
-  Shale

### Notes:

- 1- EOB: END OF BORING AR: AUGER REFUSAL SR: SAMPLER REFUSAL
- 2- THE NUMBER BELOW THE STRIPS IS THE DISTANCE ALONG THE BASELINE.
- 3- SEE INDIVIDUAL BORING LOG AND GEOTECHNICAL INFORMATION.
- 4- STANDARD PENETRATION TEST RESISTANCE (LEFT OF BORING) IN BLOWS PER FOOT (ASTM D1586).

Plastic Limit	Water Content	Liquid Limit	▽	WL (First Encountered)		Fill
X	●	△	▽	WL (Completion)		Possible Fill
[Fines Content %]			▽	WL (Estimated Seasonal High Water)		Probable Fill
	Bottom of Casing		▽	WL (Stabilized)		Rock
	Loss of Circulation					
	Calibrated Penetrometer					



<b>GENERALIZED SUBSURFACE SOIL PROFILE</b>	
<b>Parking Development for Marquette Manor Facility</b>	
<b>LDA Architects Inc.</b>	
<b>1999 Sutter Avenue, Cincinnati, Ohio, 45225</b>	
Project No:	66:1493
Date:	08/23/2024

## APPENDIX B – Field Operations

Reference Notes for Boring Logs

Reference Notes for Rock Cores

Subsurface Exploration Procedure: Standard Penetration Testing (SPT)

Boring Logs



# REFERENCE NOTES FOR BORING LOGS

MATERIAL <sup>1,2</sup>	
	<b>ASPHALT</b>
	<b>CONCRETE</b>
	<b>GRAVEL</b>
	<b>TOPSOIL</b>
	<b>VOID</b>
	<b>BRICK</b>
	<b>AGGREGATE BASE COURSE</b>
	<b>GW WELL-GRADED GRAVEL</b> gravel-sand mixtures, little or no fines
	<b>GP POORLY-GRADED GRAVEL</b> gravel-sand mixtures, little or no fines
	<b>GM SILTY GRAVEL</b> gravel-sand-silt mixtures
	<b>GC CLAYEY GRAVEL</b> gravel-sand-clay mixtures
	<b>SW WELL-GRADED SAND</b> gravelly sand, little or no fines
	<b>SP POORLY-GRADED SAND</b> gravelly sand, little or no fines
	<b>SM SILTY SAND</b> sand-silt mixtures
	<b>SC CLAYEY SAND</b> sand-clay mixtures
	<b>ML SILT</b> non-plastic to medium plasticity
	<b>MH ELASTIC SILT</b> high plasticity
	<b>CL LEAN CLAY</b> low to medium plasticity
	<b>CH FAT CLAY</b> high plasticity
	<b>OL ORGANIC SILT or CLAY</b> non-plastic to low plasticity
	<b>OH ORGANIC SILT or CLAY</b> high plasticity
	<b>PT PEAT</b> highly organic soils

DRILLING SAMPLING SYMBOLS & ABBREVIATIONS			
SS	Split Spoon Sampler	PM	Pressuremeter Test
ST	Shelby Tube Sampler	RD	Rock Bit Drilling
WS	Wash Sample	RC	Rock Core, NX, BX, AX
BS	Bulk Sample of Cuttings	REC	Rock Sample Recovery %
PA	Power Auger (no sample)	RQD	Rock Quality Designation %
HSA	Hollow Stem Auger		

PARTICLE SIZE IDENTIFICATION		
DESIGNATION	PARTICLE SIZES	
Boulders	12 inches (300 mm) or larger	
Cobbles	3 inches to 12 inches (75 mm to 300 mm)	
Gravel:	Coarse	¾ inch to 3 inches (19 mm to 75 mm)
	Fine	4.75 mm to 19 mm (No. 4 sieve to ¾ inch)
Sand:	Coarse	2.00 mm to 4.75 mm (No. 10 to No. 4 sieve)
	Medium	0.425 mm to 2.00 mm (No. 40 to No. 10 sieve)
	Fine	0.074 mm to 0.425 mm (No. 200 to No. 40 sieve)
Silt & Clay ("Fines")	<0.074 mm (smaller than a No. 200 sieve)	

COHESIVE SILTS & CLAYS		
UNCONFINED COMPRESSIVE STRENGTH, QP <sup>4</sup>	SPT <sup>5</sup> (BPF)	CONSISTENCY <sup>7</sup> (COHESIVE)
<0.25	<2	Very Soft
0.25 - <0.50	2 - 4	Soft
0.50 - <1.00	5 - 8	Firm
1.00 - <2.00	9 - 15	Stiff
2.00 - <4.00	16 - 30	Very Stiff
4.00 - 8.00	31 - 50	Hard
>8.00	>50	Very Hard

RELATIVE AMOUNT <sup>7</sup>	COARSE GRAINED (%) <sup>8</sup>	FINE GRAINED (%) <sup>8</sup>
Trace	≤5	≤5
With	10 - 20	10 - 25
Adjective (ex: "Silty")	25 - 45	30 - 45

GRAVELS, SANDS & NON-COHESIVE SILTS	
SPT <sup>5</sup>	DENSITY
<5	Very Loose
5 - 10	Loose
11 - 30	Medium Dense
31 - 50	Dense
>50	Very Dense

WATER LEVELS <sup>6</sup>	
	WL (First Encountered)
	WL (Completion)
	WL (Seasonal High Water)
	WL (Stabilized)

FILL AND ROCK			
FILL	POSSIBLE FILL	PROBABLE FILL	ROCK

<sup>1</sup>Classifications and symbols per ASTM D 2488-17 (Visual-Manual Procedure) unless noted otherwise.

<sup>2</sup>To be consistent with general practice, "POORLY GRADED" has been removed from GP, GP-GM, GP-GC, SP, SP-SM, SP-SC soil types on the boring logs.

<sup>3</sup>Non-ASTM designations are included in soil descriptions and symbols along with ASTM symbol [Ex: (SM-FILL)].

<sup>4</sup>Typically estimated via pocket penetrometer or Torvane shear test and expressed in tons per square foot (tsf).

<sup>5</sup>Standard Penetration Test (SPT) refers to the number of hammer blows (blow count) of a 140 lb. hammer falling 30 inches on a 2 inch OD split spoon sampler required to drive the sampler 12 inches (ASTM D 1586). "N-value" is another term for "blow count" and is expressed in blows per foot (bpf). SPT correlations per 7.4.2 Method B and need to be corrected if using an auto hammer.

<sup>6</sup>The water levels are those levels actually measured in the borehole at the times indicated by the symbol. The measurements are relatively reliable when augering, without adding fluids, in granular soils. In clay and cohesive silts, the determination of water levels may require several days for the water level to stabilize. In such cases, additional methods of measurement are generally employed.

<sup>7</sup>Minor deviation from ASTM D 2488-17 Note 14.

<sup>8</sup>Percentages are estimated to the nearest 5% per ASTM D 2488-17.





## REFERENCE NOTES FOR ROCK CORES

ROCK CLASSIFICATION TYPES		
Igneous	Sedimentary	Metamorphic
<b>Coarse Grained</b> DIABASE DIORITE GABBRO GRANITE PEGMATITE PERIDOTITE SYENITE	<b>Clastic (sediment)</b> SHALE SILTSTONE SANDSTONE CONGLOMERATE LIMESTONE, OOLITIC	<b>Foliated</b> GNEISS PHYLLITE SCHIST SLATE
<b>Fine Grained</b> ANDESITE BASALT RHYOLITE TRACHYTE	<b>Chemically Formed</b> DOLOSTONE GYPSUM HALITE LIMESTONE	<b>Non-Foliated</b> AMPHIBOLITE HORNFELS MARBLE QUARTZITE
<b>Pyroclastic</b> OBSIDIAN PUMICE TUFF	<b>Organic Remains</b> CHALK COAL COQUINA	

HARDNESS	
<b>Very Soft</b>	Deformed by hand
<b>Soft</b>	Scratched with a fingernail
<b>Moderately Hard</b>	Scratched easily with a knife
<b>Hard</b>	Scratched with difficulty with a knife
<b>Very Hard</b>	Cannot be scratched with a knife

JOINT/FRACTURE SPACING	
Fractured/Jointed	Spacing
<b>Very Widely</b>	> 10 feet
<b>Slightly</b>	3 - 10 feet
<b>Moderately</b>	1 - 3 feet
<b>Highly</b>	2 inches - 1 foot
<b>Intensely</b>	< 2 inches

BEDDING	
Thinly	≤ 0.3 ft.
Medium	>0.3 ft. ≤ 1 ft.
Thickly	>1 ft. ≤ 3 ft.
Massive	>3 ft.

JOINT OR FRACTURE CONTINUITY
It shall be noted whether the joints or fractures are continuous or discontinuous. If continuity of joints is not discernable at the scale of the rock core, continuous joints or fractures shall be assumed.

JOINT/FRACTURE ORIENTATION	
The range or average orientation of each joint set or fracture trend shall be measured in degrees from a horizontal plane where possible. If no measurement is possible, the qualitative terms High, Moderate or Low-angle shall be used. Record whether the joints are present in Conjugate sets (i.e. having an opposite sense of dip)	
High	61-90 degree
Moderate	31-60 degree
Low-angle	0-30 degree
Dip-angle	(1-90) ____ degrees (if measured)

Description Sequence	Example Rock Classification Description
ROCK TYPE, [REC=_% ,RQD=_%], Weathering, Hardness, Bedding, Joint/Fracture Spacing, Joint/Fracture Surface Condition, Wall Rock Condition, Joint or Fracture Continuity, Joint/Fracture Orientation, Color, Additional Features	LIMESTONE, [REC=95%,RQD=60%], Highly Weathered, Hard, Thinly Bedded, Slightly Fractured/Jointed, Slightly Rough, Hard Wall Rock, Continuous, Moderate-angle Dip, Gray White

Recovery (REC%)
$\frac{\text{Total rock recovered from run}}{\text{Total Run Length}}$

Rock Quality Designation (RQD(%))*	
Sum of core pieces ≥ 4 inches long	
Total Run Length	
RQD%	Description of Rock Quality
0-25%	Very Poor
>25%-50%	Poor
>50%-75%	Fair
>75%-90%	Good
>90%	Excellent

WEATHERING	
<b>Unweathered</b>	No evidence of any chemical or mechanical alteration.
<b>Slightly Weathered</b>	Slight discoloration on surface, slight alteration along discontinuities, less than 10 percent of the rock volume altered.
<b>Moderately Weathered</b>	Discoloring evident, surface pitted and altered with alteration penetrating well below rock surfaces, weathering 'halos' evident. 10 to 50 percent of the rock altered.
<b>Highly Weathered</b>	Entire mass discolored, alteration pervading nearly all of the rock, with some pockets of slightly weathered rock noticeable, some minerals leached away.
<b>Decomposed</b>	Rock reduced to a soil with relict rock structure remaining (i.e. saprolite). Generally molded and crumbled by hand (friable).

JOINT/FRACTURE SURFACE CONDITION				
The following qualitative terms shall be used to describe surface condition of joints and fractures. Multiple terms can be used.				
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; border: 1px solid black;">Very rough</td> <td style="width: 25%; border: 1px solid black;">Slightly rough</td> <td style="width: 25%; border: 1px solid black;">Slickensided</td> <td style="width: 25%; border: 1px solid black;">Gouge</td> </tr> </table>	Very rough	Slightly rough	Slickensided	Gouge
Very rough	Slightly rough	Slickensided	Gouge	

WALL ROCK CONDITION
The qualitative terms 'hard wall rock' or 'soft wall rock' shall be used to describe the condition of the parent rock on either side of the joint or fracture.

\*ASTM D6032-17: RQD is performed on cores using BQ to PQ sized bits (1.433 to 3.345 inch diameter cores, respectively)



## SUBSURFACE EXPLORATION PROCEDURE: STANDARD PENETRATION TESTING (SPT) ASTM D 1586 Split-Barrel Sampling

Standard Penetration Testing, or **SPT**, is the most frequently used subsurface exploration test performed worldwide. This test provides samples for identification purposes, as well as a measure of penetration resistance, or N-value. The N-Value, or blow counts, when corrected and correlated, can approximate engineering properties of soils used for geotechnical design and engineering purposes.

### SPT Procedure:

- Involves driving a hollow tube (split-spoon) into the ground by dropping a 140-lb hammer a height of 30-inches at desired depth
- Recording the number of hammer blows required to drive split-spoon a distance of 18-24 inches (in 3 or 4 Increments of 6 inches each)
- Auger is advanced\* and an additional SPT is performed
- One SPT typically performed for every two to five feet. An approximate 1.5 inch diameter soil sample is recovered.

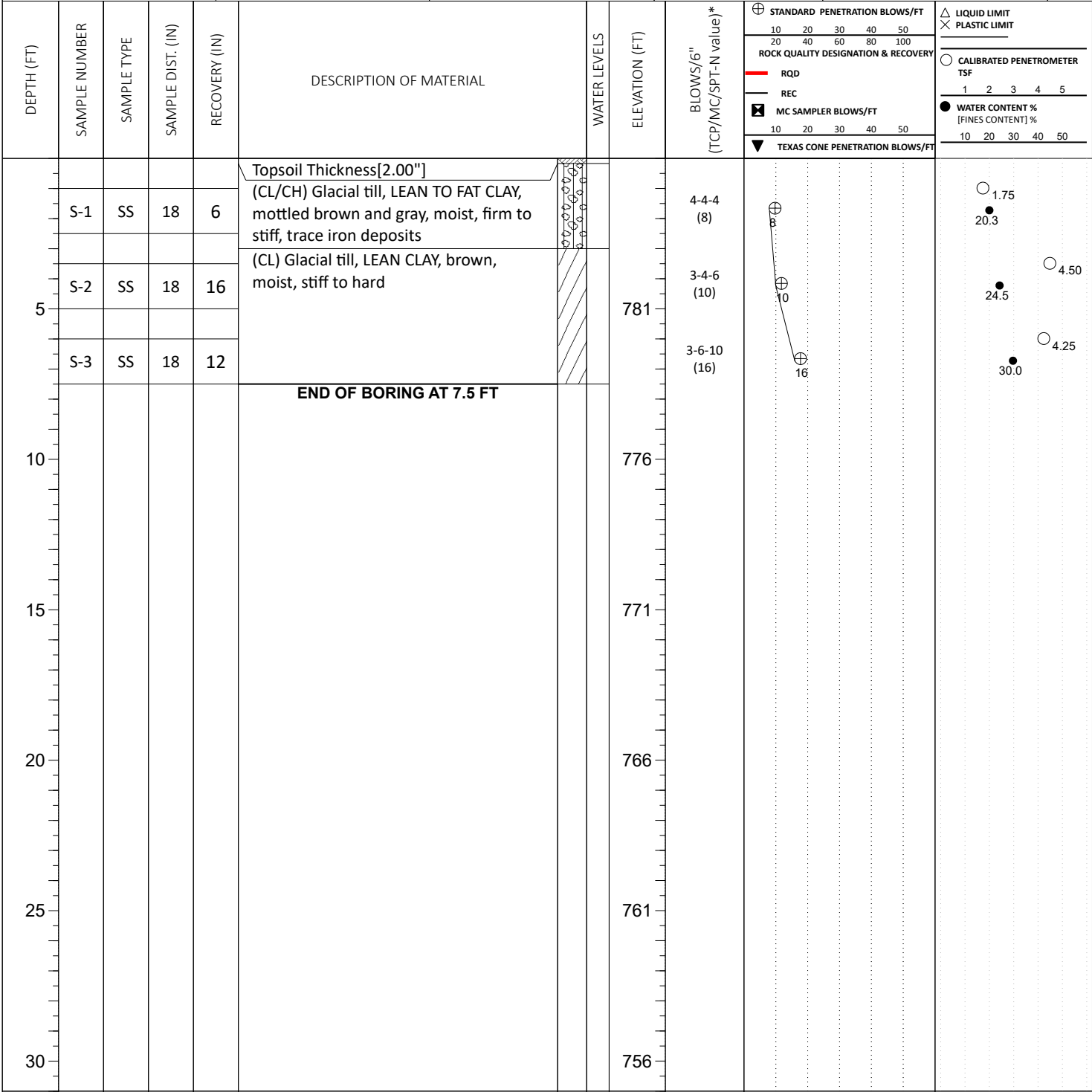


*\*Drilling Methods May Vary*— The predominant drilling methods used for SPT are open hole fluid rotary drilling and hollow-stem auger drilling.

CLIENT: <b>LDA Architects Inc.</b>	PROJECT NO.: <b>66:1493</b>	BORING NO.: <b>B-01</b>	SHEET: <b>1 of 1</b>	
PROJECT NAME: <b>Marquette Manor Parking Development</b>	DRILLER/CONTRACTOR: <b>Central Star Drilling Inc.</b>			

SITE LOCATION: <b>1999 Sutter Avenue, Cincinnati, Ohio, 45225</b>	LOSS OF CIRCULATION	
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LATITUDE: <b>39.140430</b>	LONGITUDE: <b>-84.557705</b>	STATION:	SURFACE ELEVATION: <b>786.0</b>	BOTTOM OF CASING
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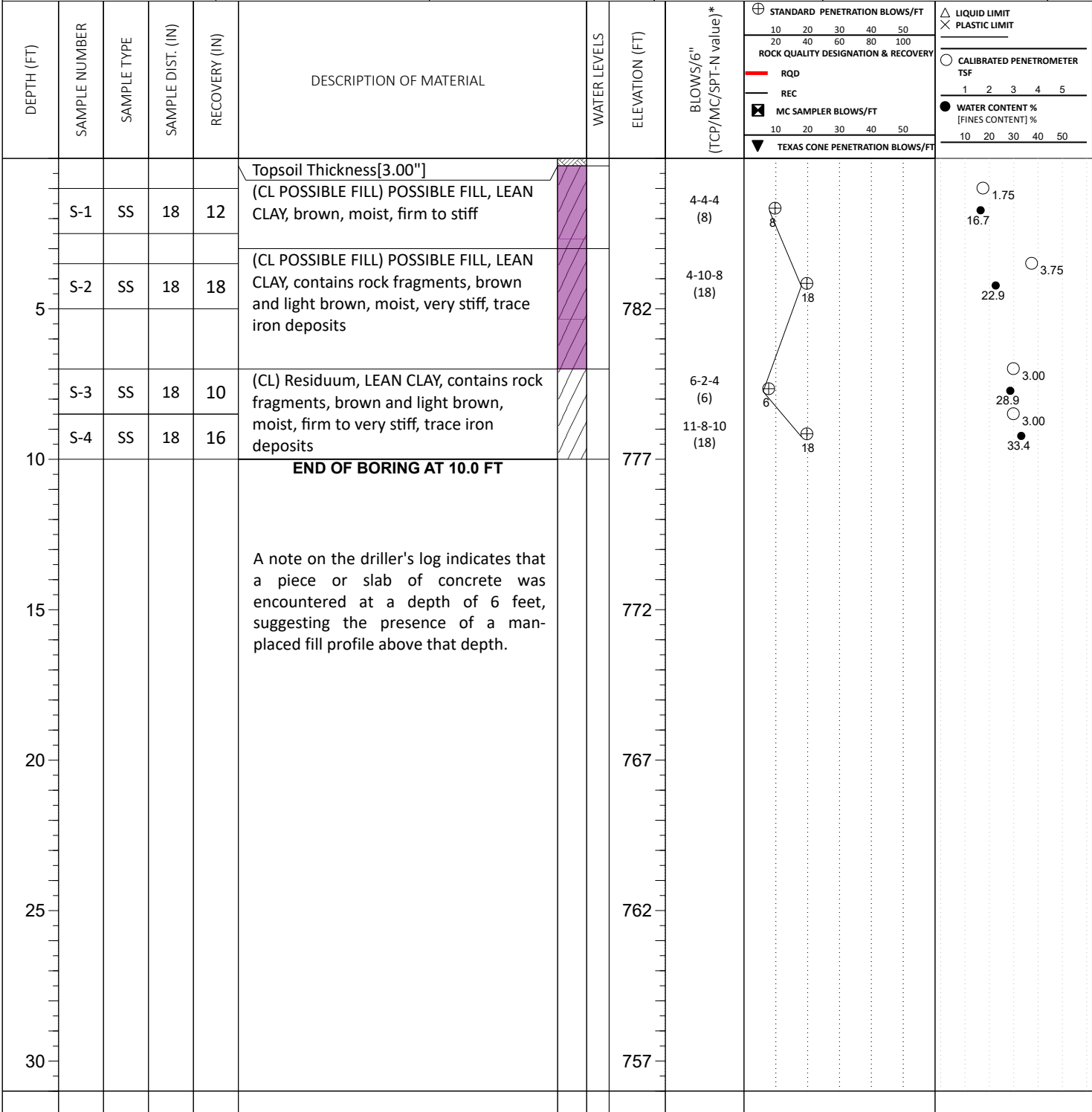
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL

<input checked="" type="checkbox"/> WL (First Encountered)	<b>Dry</b>	BORING STARTED: <b>Aug 07 2024</b>	CAVE IN DEPTH:
<input checked="" type="checkbox"/> WL (Completion)	<b>Dry</b>	BORING COMPLETED: <b>Aug 07 2024</b>	HAMMER TYPE: <b>Auto</b>
<input checked="" type="checkbox"/> WL (Seasonal High Water)	<b>N/A</b>	EQUIPMENT: <b>Moble B57</b>	DRILLING METHOD: <b>Hollow Stem Auger</b>
<input checked="" type="checkbox"/> WL (Stabilized)	<b>N/A</b>	LOGGED BY: <b>CJL</b>	

### GEOTECHNICAL BOREHOLE LOG

SITE LOCATION:  
**1999 Sutter Avenue, Cincinnati, Ohio, 45225**

LATITUDE: <b>39.140102</b>	LONGITUDE: <b>-84.557730</b>	STATION:	SURFACE ELEVATION: <b>787.0</b>	LOSS OF CIRCULATION
				BOTTOM OF CASING



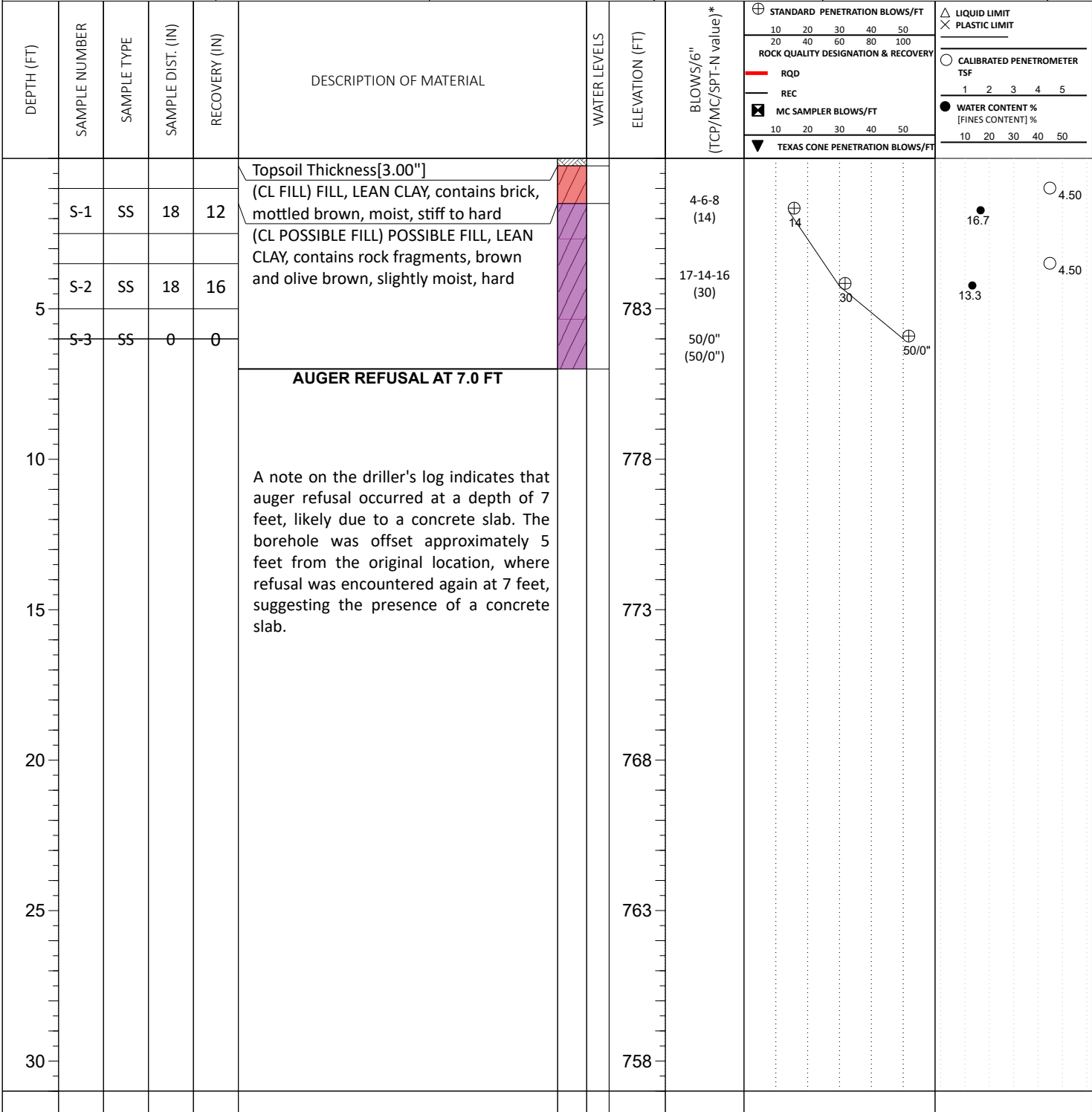
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL

<input checked="" type="checkbox"/> WL (First Encountered)	Dry	BORING STARTED: <b>Aug 07 2024</b>	CAVE IN DEPTH: <b>2.50</b>
<input checked="" type="checkbox"/> WL (Completion)	Dry	BORING COMPLETED: <b>Aug 07 2024</b>	HAMMER TYPE: <b>Auto</b>
<input checked="" type="checkbox"/> WL (Seasonal High Water)	N/A	EQUIPMENT: <b>Moble B57</b>	DRILLING METHOD: <b>Hollow Stem Auger</b>
<input checked="" type="checkbox"/> WL (Stabilized)	N/A	LOGGED BY: <b>CJL</b>	

### GEOTECHNICAL BOREHOLE LOG

SITE LOCATION:  
**1999 Sutter Avenue, Cincinnati, Ohio, 45225**

LATITUDE: <b>39.139957</b>	LONGITUDE: <b>-84.557484</b>	STATION:	SURFACE ELEVATION: <b>788.0</b>	LOSS OF CIRCULATION 
				BOTTOM OF CASING 



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL

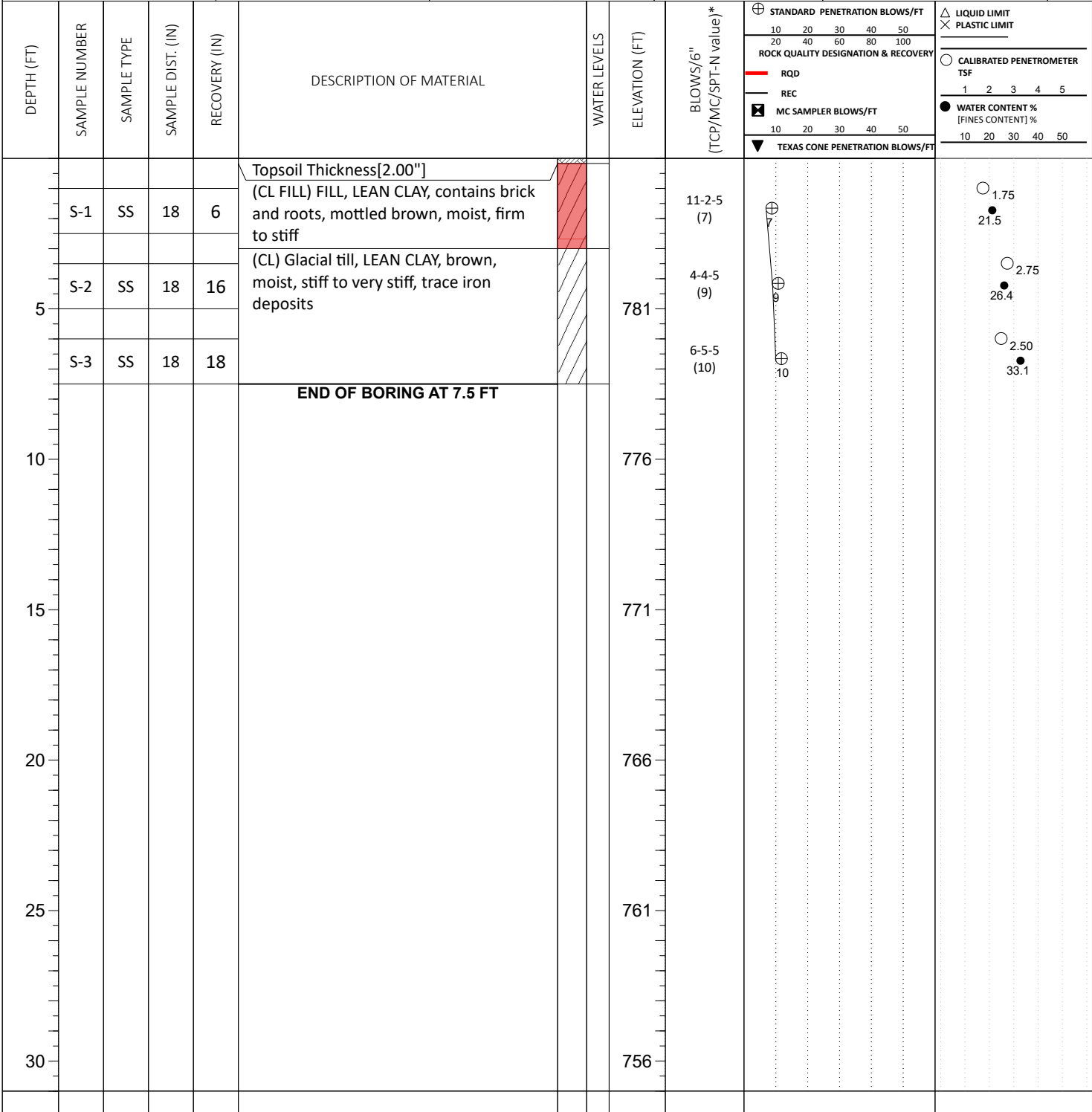
<input checked="" type="checkbox"/> WL (First Encountered)	Dry	BORING STARTED: <b>Aug 07 2024</b>	CAVE IN DEPTH: <b>N/A</b>
<input checked="" type="checkbox"/> WL (Completion)	Dry	BORING COMPLETED: <b>Aug 07 2024</b>	HAMMER TYPE: <b>Auto</b>
<input checked="" type="checkbox"/> WL (Seasonal High Water)	N/A		
<input checked="" type="checkbox"/> WL (Stabilized)	N/A	EQUIPMENT: <b>Moble B57</b>	LOGGED BY: <b>CJL</b>
DRILLING METHOD: <b>Hollow Stem Auger</b>			

**GEOTECHNICAL BOREHOLE LOG**

CLIENT: <b>LDA Architects Inc.</b>	PROJECT NO.: <b>66:1493</b>	BORING NO.: <b>B-04</b>	SHEET: <b>1 of 1</b>	
PROJECT NAME: <b>Marquette Manor Parking Development</b>	DRILLER/CONTRACTOR: <b>Central Star Drilling Inc.</b>			

SITE LOCATION: <b>1999 Sutter Avenue, Cincinnati, Ohio, 45225</b>	LOSS OF CIRCULATION	
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LATITUDE: <b>39.139895</b>	LONGITUDE: <b>-84.557950</b>	STATION:	SURFACE ELEVATION: <b>786.0</b>	BOTTOM OF CASING
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THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL

<input checked="" type="checkbox"/> WL (First Encountered)	<b>Dry</b>	BORING STARTED:	<b>Aug 07 2024</b>	CAVE IN DEPTH:	<b>3.50</b>
<input checked="" type="checkbox"/> WL (Completion)	<b>Dry</b>	BORING COMPLETED:		HAMMER TYPE: <b>Auto</b>	
<input checked="" type="checkbox"/> WL (Seasonal High Water)	<b>N/A</b>	EQUIPMENT:		DRILLING METHOD: <b>Hollow Stem Auger</b>	
<input checked="" type="checkbox"/> WL (Stabilized)	<b>N/A</b>	Moble <b>B57</b>		LOGGED BY: <b>CJL</b>	

### GEOTECHNICAL BOREHOLE LOG

CLIENT: <b>LDA Architects Inc.</b>	PROJECT NO.: <b>66:1493</b>	BORING NO.: <b>B-05</b>	SHEET: <b>1 of 1</b>	
PROJECT NAME: <b>Marquette Manor Parking Development</b>	DRILLER/CONTRACTOR: <b>Central Star Drilling Inc.</b>			

SITE LOCATION: <b>1999 Sutter Avenue, Cincinnati, Ohio, 45225</b>	LOSS OF CIRCULATION 
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LATITUDE: <b>39.139799</b>	LONGITUDE: <b>-84.557515</b>	STATION:	SURFACE ELEVATION: <b>788.0</b>	BOTTOM OF CASING 
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DEPTH (FT)	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS	ELEVATION (FT)	BLOWS/6" (TCP/MC/SPT-N value)*	STANDARD PENETRATION BLOWS/FT		ROCK QUALITY DESIGNATION & RECOVERY		LIQUID LIMIT PLASTIC LIMIT		CALIBRATED PENETROMETER TSF		WATER CONTENT % [FINES CONTENT] %		
									10	20	30	40	50	10	20	30	40	50	1
					Topsoil Thickness[3.00"] (CL FILL) FILL, LEAN CLAY WITH SAND, contains brick, concrete, rock fragments, and wood, mottled brown, moist, very stiff to hard														
5	S-1	SS	18	6			37-12-15 (27)												
	S-2	SS	18	12			7-8-15 (23)												
	S-3	SS	11	10	SHALE, weathered, olive brown, moist, very soft to soft, with limestone fragments		15-50/5" (50/5")												
					<b>AUGER REFUSAL AT 7.0 FT</b>														

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL

WL (First Encountered)	<b>Dry</b>	BORING STARTED:	<b>Aug 07 2024</b>	CAVE IN DEPTH:	<b>5.50</b>
WL (Completion)	<b>Dry</b>	BORING COMPLETED:	<b>Aug 07 2024</b>	HAMMER TYPE:	<b>Auto</b>
WL (Seasonal High Water)	<b>N/A</b>	EQUIPMENT:	<b>Moble B57</b>	LOGGED BY:	<b>CJL</b>
WL (Stabilized)	<b>N/A</b>	DRILLING METHOD: <b>Hollow Stem Auger</b>			

**GEOTECHNICAL BOREHOLE LOG**

## **APPENDIX C – Supplemental Report Information**

Important Information about This Geotechnical-Engineering Report



# Important Information about This

# Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

**The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.**

## Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

## Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer

will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

## Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

## You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

### Most of the “Findings” Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site’s subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual site-wide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

### This Report’s Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

### This Report Could Be Misinterpreted

Other design professionals’ misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals’ plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

### Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note*

*conspicuously that you’ve included the material for information purposes only.* To avoid misunderstanding, you may also want to note that “informational purposes” means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

### Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled “limitations,” many of these provisions indicate where geotechnical engineers’ responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

### Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a “phase-one” or “phase-two” environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

### Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer’s services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer’s recommendations will not of itself be sufficient to prevent moisture infiltration.* *Confront the risk of moisture infiltration* by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists.*



Telephone: 301/565-2733

e-mail: [info@geoprofessional.org](mailto:info@geoprofessional.org) [www.geoprofessional.org](http://www.geoprofessional.org)

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